Mill Supply Buyers' Guide

A Directory of the Manufacturers of Mill, Mine, Steam, Plumbing, Heating and General Industrial Supplies, Machinery and Tools, arranged and published especially for the use of supply house buyers.

CONTINUATION
Ref

1928 EDITION

22nd Year of Publication

1928
R 670.3 D 42

32154 1

The Crawford Publishing Co.
537 South Dearborn Street Chicago

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PRINTED IN U. S. A.

OCT 7 1969

FOREWORD

Distributors of industrial supplies occupy an important place in the business organization of this country. While they are not called upon to supply *all* the industrial equipment used in mills, factories, shops, mines, and plumbing and heating installations, a large proportion of it passes through their warehouses on its way to the users.

This equipment is of great variety. It is manufactured in thousands of plants, each producing one or more specialties or a line of similar products. Trade names are extensivley used to designate these products.

For the distributor of industrial supplies to have personal knowledge of all these products is an impossibility. At the same time they are in demand the country over, and when the call comes for something new, the distributor is expected to know where to secure it without delay.

If every supply house could have a complete file of the catalogs of these several thousand manufacturers, all indexed so that the description of any article in them could be turned to instantly, there would be little difficulty in locating the sources of the varied equipment its customers need. As this is impractical for most supply houses, the publisher of *Mill Supply Buyers' Guide* has since 1907 kept up such a file, and at the beginning of each year published this classified index for the special use of the mill and plumbing supply field. In addition to classifying the products of manufacturers, the firm names are listed alphabetically with street addresses.

Write to the publisher for information not contained in this guide. A library of business directories, periodicals and telephone directories is maintained and hundreds of inquiries from dealers and manufacturers are answered in the course of a year. Criticisms and comments on this edition, and suggestions for improving the next edition are welcomed.

THE CRAWFORD PUBLISHING CO.

537 South Dearborn Street **Chicago, Illinois**

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You Can Always Recommend

Powell Valves

To Do the Work Required of Them

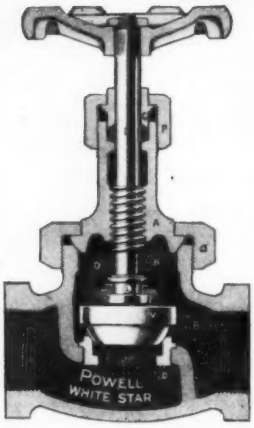

Fig. 102

Bronze White Star Globe Valve with Renewable Seat and Disc. Sizes ¼ to 3 inches 200 pounds, and Extra Heavy for 300 pounds W. S. P.

The high grade material and workmanship which enter into the manufacture of all POWELL VALVES, guarantee unfailing dependability and perfect satisfaction.

There is a Powell Valve for every purpose, whether the requirement is for all bronze, iron body, all iron, or steel valves; for standard, medium or extra heavy pressures and high temperatures.

Your customers will appreciate your having POWELL VALVES on hand to supply their needs.

All valves are thoroughly tested and guaranteed.

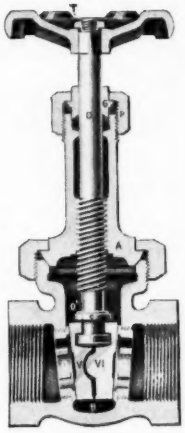

Fig. 1375

Bronze White Star Gate Valve with Renewable Seats and Discs. Sizes ¼ to 3 inches 200 pounds, and Extra Heavy for 300 pounds W. S. P.

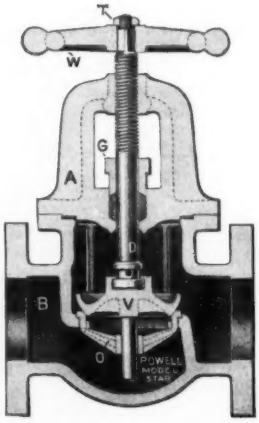

Fig. 241

Iron Body Model Star Globe Valve with Renewable Seat and Disc.

Sizes 2 to 10 inches 150 pounds, heavy 175 pounds, Extra Heavy for 250 pounds W. S. P.

Write for descriptive literature

THE WM. POWELL COMPANY

POWELL VALVES

2521-31 SPRING GROVE AVE

CINCINNATI, OHIO

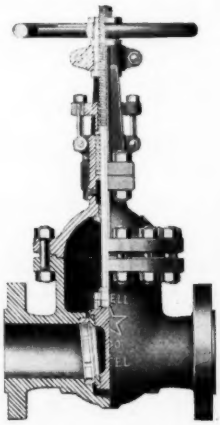

Fig. 4031

Series 400 Steel Gate Valve Sizes 4 to 24 inches 400 pounds W. S. P. at 750°F.

Mill Supply Buyers' Guide

1928 Edition

A buyers' guide for supply houses, listing the manufacturers of mill, steam, mine, machinists', plumbing, heating, contractors' and kindred lines of supplies, heavy hardware, tools and machinery. Alphabetical list of manufacturers, giving street addresses, will be found at the end of this classified section.

The original plan of the "Mill Supply Buyers' Guide" was to list all trade names in alphabetical order, each one followed by the name of the manufacturer. In some classifications a manufacturer has a number of trade names for the same kind of article. To concentrate this information and save space, the several trade names have been set following the firm name. Therefore, when looking for trade names of articles, do not conclude that the name is not listed until you have read the entire list to see if the trade name you want follows the name of the manufacturer of the article.

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The Famous "Arm & Hammer" Wrought Iron Anvils

Crucible Steel Face

We Solicit and Protect the Jobbing Trade

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Milburn, Alexander, Co., The, Baltimore, Md.
Prest-O-Lite—Prest-O-Lite Co., Inc., Indianapolis, Ind.
Pyrotip—General Electric Co., Schenectady, N. Y.
Rego—The Bastian-Blessing Co., Chicago, Ill.
Smith's Inventions, Inc., Minneapolis, Minn.
Torchweld—Torchweld Equipment Co., Chicago, Ill.
Turner—Turner Brass Works, Sycamore, Ill.
Waterhouse Welding Co., Boston, Mass.
Weldit—Weldit Acetylene Co., Detroit, Mich.

APRONS, MECHANICS'.

Atlantic Mfg. Co., Wilmington, Del.
California Tanning Co., St. Louis, Mo.
Chicago Belting Company, Chicago, Ill.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Graton & Knight Co., Worcester, Mass.
Gross, William M., Co., Sharon, Pa.
Hudson Belting Co., Worcester, Mass.
Schieren, Chas. A., Co., New York, N. Y.
Wheeler—F. H. Wheeler Mfg. Co., Chicago, Ill.

AQUAPHONES AND DETECTORPHONES.

Transmit-O-Phone—O'Donnell Specialty Co., New York, N. Y.
Waterworks Equipment Co., New York, N. Y.

AQUASTATS.

Federal Gauge Co., The, Chicago, Ill.

ARBORS, DRILL.

Cogsdill Mfg. Co., Detroit, Mich.
Goodell-Pratt Co., Greenfield, Mass.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Moore & Moore, Inc., Reading, Pa.
Jacobs Mfg. Co., Hartford, Conn.
Parker—The Oberlin Mfg. Co., Oberlin, O.
Skinner Chuck Co., New Britain, Conn.
Westcotts, Morse—Westcott Chuck Co., Oneida, N. Y.

ARBORS, LATHE AND MILLING.

Alert Tool Co., Philadelphia, Pa. (roller grip).
Almond, T. R., Mfg. Co., Ashburnham, Mass.
Braunsdorf-Mueller Co., Elizabeth, N. J.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cleveland Twist Drill Co., Cleveland, O. (Shell end mill, shell reamer, etc.)
Cochrane-Bly Co., Rochester, N. Y.
Horton—E. Horton & Son Co., Windsor Locks, Conn.
Lutz Company, Inc., Philadelphia, Pa.
The Morse Twist Drill & Machine Co., New Bedford, Mass.
Niles-Bement-Pond Co., New York, N. Y.
Partridge—E. O. Partridge, Chicago, Ill.
Pratt Chuck Co., Frankfort, N. Y.
Skinner Chuck Co., New Britain, Conn.
Standard Tool Co., The, Cleveland, O.
Union Mfg. Co., New Britain, Conn.
Union Twist Drill Co., Athol, Mass.
Whitman Barnes-Detroit Corp., Detroit, Mich.

ARBORS, SAW.

American Saw Mill Machinery Co., Hackettstown, N. J.
Atkins, E. C., & Co., Indianapolis, Ind.
Beach—Beach Mfg. Co., Montrose, Pa.
Disston, Henry, & Sons, Inc., Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Grammes, L. F., & Sons, Allentown, Pa.
Simonds Saw & Steel Co., Fitchburg, Mass.
Southern Saw Works, Atlanta, Ga.

ARCHES, BOILER.

Bros, Wm., Boiler & Mfg. Co., Minneapolis, Minn.
Budd—The Budd Grate Co., Philadelphia, Pa.
Detrick—M. H. Detrick Co., Chicago, Ill.

Green—International Combustion Engineering Corp., New York, N. Y.
Hang Over—Cokal Stoker Corp., Chicago, Ill.
Illinois Stoker Co., Alton, Ill.
Kieley & Mueller, Inc., New York, N. Y. "Kilemul."
Monarch—Monarch Boiler Arch Co., Milwaukee, Wis.
National—M. A. Hofft Co., Indianapolis, Ind.
Presbrey Stove Lining Co., Taunton, Mass.
Simplex—United Conveyor Corp., Chicago, Ill.

ATTACHMENTS, DRILLING.

Goodell-Pratt Co., Greenfield, Mass.
Cincinnati Bickford Tool Co., Oakley, Cincinnati, O.
Dikeman Reliable—The Dikeman Mfg. Co., Norwalk, Conn.
Harris Engineering Co., Bridgeport, Conn.
Hjorth Lathe & Tool Co., Boston, Mass. (Submerged.)
Niles-Bement-Pond Co., New York, N. Y.
Reed Co., Francis, Worcester, Mass.
Robinson, M. W., Co., New York, N. Y.
Shepard—Prentiss Vise Co., New York, N. Y.
Sundstrand Machine Tool Co., Rockford, Ill.
Wizard—McCrosky Tool Corp., The, Meadville, Pa.

ATTACHMENTS, GEAR CUTTING.

Brown & Sharpe Mfg. Co., Providence, R. I.
South Bend Lathe Works, South Bend, Ind.

ATTACHMENTS, GRINDING.

American—Diamond Machine Co., Providence, R. I.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cincinnati Bickford Tool Co., The, Cincinnati, O.
Cincinnati Milling Machine Co., The, Cincinnati, O.
Elgin Tool Co., The, Elgin, Ill.
Harris Engineering Co., Bridgeport, Conn.
Hjorth Lathe & Tool Co., Boston, Mass.
Keystone Grinder & Mfg. Co., Pittsburgh, Pa. (For grinding adzes, drills, flat bits, pipe dies, scythes and saws.)
Niles-Bement-Pond Co., New York, N. Y.
Rivett Lathe & Grinder Co., Brighton, District of Boston, Mass.
South Bend Lathe Works, South Bend, Ind.
Up-to-Date Tool Co., Waltham, Mass.
Wilkie Machine Works, Winona, Minn.

ATTACHMENTS, LATHE.

American Tool & Machine Co., Boston, Mass.
Barnes Drill Co., Rockford, Ill.
Bradford Machine Tool Co., Cincinnati, O.
Champion—Western Tool & Mfg. Co., Springfield, O.
Cincinnati Tool Co., Cincinnati, O.
Curtis—The Curtis & Curtis Co., Bridgeport, Conn.
F. & S.—Fay & Scott, Dexter, Maine.
Goodell-Pratt Co., Greenfield, Mass.
McCrosky Tool Corp., Meadville, Pa. (turrets, etc.).
Moseley Lathe Co., The, Elgin, Ill.
Newman Mfg. Co., Cincinnati, Ohio.
Niles-Bement-Pond Co., New York, N. Y.
Paschall Tool Co., Long Beach, Calif.
Rahn-Larmon Co., The, Cincinnati, O.
Rivett Lathe & Grinder Co., Brighton, District of Boston, Mass.
Shepard—Shepard Lathe Co., Rising Sun, Ind.
South Bend Lathe Works, South Bend, Ind.
Stark Tool Co., Waltham, Mass.
Williams, J. H., & Co., Buffalo, N. Y.

ATTACHMENTS, LATHE KEY SEAT.

South Bend Lathe Works, South Bend, Ind.

ATTACHMENTS OR FIXTURES, MILLING.

Barnes Drill Co., Rockford, Ill.
Barnes, W. F. & John, Co., Rockford, Ill.
Browne & Sharpe Mfg. Co., Providence, R. I.
Cincinnati Milling Machine Co., The, Cincinnati, O.
Cleveland Milling Machine Co., Cleveland, O.
Cochrane-Bly Co., Rochester, N. Y.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Elgin Tool Works, The, Elgin, Ill.
Farwell—The Adams Co., Dubuque, Ia. (for planers)
Hendey Machine Co., Torrington, Conn.
Heavy-Du-T—The Porter-Cable Machine Co., Syracuse, N. Y.
Horton—E. Horton & Son Co., Windsor Locks, Conn.
Ingersoll Milling Machine Co., Rockford, Ill.
Kempsmith—The Kempsmith Mfg. Co., Milwaukee
Krasberg Engineering & Mfg. Corp., Chicago, Ill.
LeBlond, R. K., Machine Tool Co., Cincinnati, O.
Milwaukee—Kearney & Trecker Corp., Milwaukee, Wis.
Niles-Bement-Pond Co., New York, N. Y.
Oesterlein Machine Co., Cincinnati, O.
Rivett Lathe & Grinder Co., Brighton Dist., Boston, Mass.
Shepard—Shepard Lathe Co., Rising Sun, Ind.
South Bend Lathe Works, South Bend, Ind.
Sundstrand Machine Tool Co., Rockford, Ill. "Rockford."
Up-to-Date Tool Co., Waltham, Mass.
Whitney Mfg. Co., Hartford, Conn.

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ATTACHMENTS, PLANING.

Hanson-Whitney Machine Co., The, Hartford, Conn.

ATTACHMENTS, SHAPER.

American Tool Works Co., Cincinnati, O. (cross feed, automatic).
Cochrane-Bly Co., Rochester, N. Y.

ATTACHMENTS, SLOTTING.

Bruno—H. A. Moore Co., Rochester, N. Y.

ATTACHMENTS, SPACING AND BORING

Craley, C. C., Mfg. Co., Shillington, Pa.

ATTACHMENTS, TAPER.

Scarbrough Mfg. Co., Chattanooga, Tenn.
Walcott Lathe Co., Jackson, Mich.

ATTACHMENTS, TAPPING.

Ettco—Eastern Tube & Tool Co., Inc., Brooklyn, N. Y.
Elgin Tool Works, Elgin, Ill.
Geometric—The Geometric Tool Co., New Haven, Conn.
Hoefer Mfg. Co., Freeport, Ill.
Jarvis—Charles L. Jarvis Co., The, Gildersleeve, Conn.
La Francis—A. La Francis, Newark, N. J.
Modern—Consolidated Machine Tool Corp. of America, New York, N. Y.
Niles-Bement-Pond Co., New York, N. Y
Procunier—Wm. L. Procunier, Chicago, Ill.
Wahlstrom Tapper—Wahlstrom Tool Co., Brooklyn, N. Y.
Wizard—McCrosky Tool Corp., The, Meadville, Pa.
Woodstock—Peter Bros. Mfg. Co., Algonquin, Ill.

AUGERS, BREAST, MINE.

Leetonia Tool Co., The, Leetonia, Ohio.

AUGERS, COAL AND ROCK.

Fairmont—Fairmont Mining Machinery Co., Fairmont, W. Va.
Hardsocg, Martin, Co., Pittsburgh, Pa.
Leetonia Tool Co., Leetonia, O.
Pneumelectric Co., The, Syracuse, N. Y.
Salem Tool Co., The, Salem, O.
Warwood Tool Co., Wheeling, W. Va.

AUGERS, EARTH.

Pugh, J. T., Inc., Philadelphia, Pa.

AUGERS, GASFITTERS'.

Always Reliable—Otto Bernz Co., Newark, N. J.
Buffum Tool Co., Louisiana, Mo.
Goodell-Pratt Co., Greenfield, Mass.
Greenlee Bros. & Co., Rockford, Ill.
Swan, James, Co., Seymour, Conn.

AUGERS, HOLLOW.

Goodell-Pratt Co., Greenfield, Mass.
Hargrave—The Cincinnati Tool Co., Cincinnati, O.
Millers Falls Co., Millers Falls, Mass.
Southington Mfg. Co., Southington, Conn.
Stearns & Co., E. C., Syracuse, N. Y.
James Swan Co., Seymour, Conn.

AUGERS AND DIGGERS, POST HOLE.

American Well Works, Aurora, Ill.
Automatic, Monitor—Gustave Pech Foundry & Mfg. Co., Le Mars, Ia.
Baldwin—Baldwin Tool Works, Parkersburg, W. Va.
Columbus Handle & Tool Co., Columbus, Ind. (Trade names—Atlas, Columbus, Eureka.)
Cook, A. D., Inc., Lawrenceburg, Ind.
Fenn—The Fenn Mfg. Co., Charlotte, Mich.
Hall—Hall Mfg. Co., Cedar Rapids, Ia.
Hawkeye Mfg. Co., Waterloo, Iowa.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Iwan Bros., South Bend, Ind. (Trade names—Iwan, Invincible, Perfection, Split Handle, Vaughan.)
Klein & Sons, Mathias, Chicago, Ill.
Klein-Logan Co., The, Pittsburg, Pa.
Kohler Co., F. E., The, Canton, O. "Champion," "Hercules," "Invincible," "Kohler," "Little Giant," "Pioneer," "Rival," "Universal."
Oliver Iron & Steel Corp., Pittsburgh, Pa.
Pugh, J. T., Inc., Philadelphia, Pa.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Standard—The Specialty Device Co., Cincinnati, O.
Star—Wm. E. Pratt Mfg. Co., Chicago, Ill.

AUGERS, WATER CLOSET, PIPE AND SEWER.

Always Reliable—Otto Bernz Co., Newark, N. J.
Burt "Redtop"—White Mfg. Co., Newark, N. J.
Coleman, Allan J., Chicago, Ill.
Flexicoil—Air Cleaning Equipment Co., Cleveland,
Duplex Mfg. Co., Philadelphia, Pa.
Enduro—Woodward-Wanger Co., Philadelphia, Pa.
Garrison-Heiland Corp., New York, N. Y.
Hause, Chas. F., Mfg. Co., Inc., Omaha, Neb.
Taiz, Jacob, & Son, Philadelphia, Pa
Wrigley's Patent—Samuel Lewis, New York, N. Y.
W. W.—Woodward Wanger Co., Philadelphia, Pa.

AUTOCLAVES.

Kellogg, M. W., Co., The, New York, N. Y.
Simmons Pipe Bending Works, Newark, N J.
Valley Iron Works, Williamsport, Pa.

AWLS, SCRATCH, ETC.

Bemis & Call Hardware & Tool Co., Springfield, Mass.
Billings & Spencer Co., Hartford, Conn.
Braunsdorf-Mueller Co., Elizabeth, N. J.
Buck Bros., Millbury, Mass.
Buffum Tool Co., Louisiana, Mo.
Bullock Mfg. Associates, Springfield, Mass.
Hartford—Chapin-Stephens Co., Pine Meadow, Conn.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Goodell-Pratt Co., Greenfield, Mass.
Johnson, Wm., Firm of, Newark, N. J.
Lathrop's—Greene, Tweed & Co., New York, N. Y.
Lathrop Patent—Manufacturer's Belt Hook Co., Chicago.
Millers Falls Co., Millers Falls, Mass.
Pexto—Peck, Stow & Wilcox Co., Southington, Conn.
Tuck—Tuck Mfg. Co., Brockton Mass.
Threadwell Tool Co., The, Greenfield, Mass.

AWNINGS.

Hettrick Mfg. Co., Toledo, O.
Johnson, J. W., Co., Chicago, Ill.

AXES AND HATCHETS.

American Fork & Hoe Co., Cleveland, O.
Barton—Mack Tool Co., Inc., East Rochester, N. Y. (hand and broad axes.)
Bur-Nor, Scout—Burgess-Norton Mfg. Co., Geneva, Ill.
Clipper—Clipper Tool Co., Buffalo, N. Y.
Collins Company, The, Collinsville, Conn.
Crecoite—Marion Tool Works, Inc., Marion, Ind.
Duffy Manufacturing Co. Chicago, Ill.
Gray Iron Foundry Co., Reading, Pa.
G. T. W.—Griffith Tool Wks., Philadelphia, Pa.
Hammond, C., & Son, Ogontz, Pa.
Iron City, Star—Iron City Tool Works, Pittsburgh, Pa.
Kelly Axe Mfg. Co., Charleston, W. Va.
Leetonia Tool Co., The, Leetonia, O. (Miners').
Mann, James H., Co., Lewistown, Pa.
Mann Edge Tool Co., Lewistown, Pa. (Trade names, American Volunteer, Bald Eagle, Buck Horn, Colonial, Gold Bond, Indian Chief, Jack Frost, Knot Klipper, Old Glory, Old Honesty, Red Top, True American).
Peck, Stow & Wilcox Co., The, Southington, Conn.
Perfect Handle—The H. D. Smith & Co., Plantsville, Conn.
Plumb—Fayette R. Plumb, Inc., Philadelphia, Pa.
Quikwerk—The Warren Tool & Forge Co., Warren, O.
Sayre, L. A., & Co., Newark, N. J.
Stempel Fire Extinguisher Mfg. Co., St. Louis, Mo. (Firemen's.)
Unbreakable—Estwing Mfg. Co., Rockford, Ill.
Straight Line—Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Warren Axe & Tool Co., Warren, Pa. "Sager Patent."
White Co., L. & I. J., Buffalo, N. Y.

BABBITT METAL.

(See "Metal, Babbitt and Anti-Friction.")

BACKS, SINK.

(See "Sinks.")

BACKS AND FRONTS, WATER

Adams Co., The, Dubuque, Ia.
American Foundry & Mfg. Co., St. Louis, Mo.
Herbert Boiler Co, The, Chicago, Ill.
Hessler, H. E., Co., Syracuse, N. Y.

BAGS, CANVAS.

Johnson, J. W., Co., Chicago, Ill.

BAGS, PLUMBERS' TOOLS

Always Reliable—Otto Bernz Co., Newark, N. J.
Klein, Mathias, & Son, Chicago, Ill.
Starbuck, R. M., & Sons, Hartford, Conn. (Trade names—Hartford, Starbuck.)
Union Tool Chest Co., Rochester, N. Y.
Western Union—A. Galewski & Son, New York, N. Y.

BAGS, RUBBER, GAS MAIN.

Endurance—Edward A. Behringer, New York.
Goodrich, B. F., Rubber Co., The, Akron, O.
Hodgman Rubber Co., Tuckahoe, N. Y.

BALANCING WAYS, FOR PULLEYS, MOTORS, ETC.

Anderson Bros. Mfg. Co., Rockford, Ill.
Bowsher, N. P., & Co., The, South Bend, Ind.
Defiance Machine Works, Defiance, O.

BALERS, PAPER.

(See "Presses, Baling.")

BALERS, SACK, GARMENT, RAG, ETC.

Dependable—Shaw Welsh & Co., Galesburg, Ill.
Economy Baler Co., Ann Arbor, Mich.
Handy—Handy Sack Baler Co., Marion, Iowa.
Rowe Mfg. Co., Galesburg, Ill.

BALLS, BRASS AND BRONZE

Abbott—Abbott Ball Co., Hartford, Conn.
Atlas—Atlas Ball Co., New York, N. Y.
Auburn Ball Bearing Co., Rochester, N. Y.
Excelsior Steel Ba.. Co., Buffalo, N. Y.
Harris, Arthur, & Co., Chicago, Ill.
Holbol—Hollow Ball Co., Inc., Baltimore, Md.
Hoover—Hoover Steel Ball Co., Ann Arbor, Mich.
Midland Mfg. Co., Fort Worth, Tex. "Midland."

BALLS, BURNISHING.

Abbott—The Abbott Ball Co., Hartford, Conn.

BALLS, CHECK VALVE.

Draper Mfg. Co., The, Port Huron, Mich.
Lunkenheimer Co., Cincinnati, O.

BALLS, FLUSH TANK, RUBBER.

Canfield, H. O., Co., The, Bridgeport, Conn.
Canfield Rubber Co., The, Bridgeport, Conn.
Coleman, Allan J., Chicago, Ill.
Coyne & Delany Co., Brooklyn, N. Y.
Diamond Rubber Co., The, Akron, O.
Durst Mfg. Co., New York, N. Y.
Eastern Specialty Mfg. Co., Scranton, Pa.
Ebonite—The Luzerne Rubber Co., Trenton, N. J.
Enduro—Woodward-Wanger Co., Philadelphia, Pa.
Essex Rubber Co., Trenton, N. J.
Good Mfg. Co., New York, N Y.
Goodrich, B. F., Rubber Co., The, Akron, O.
Holland Rubber Co., New York, N. Y.
Lavelle Rubber Co., Chicago, Ill. "Cone-Seal," "Lucky Strike."
Mushroom Parabal—Woodward-Wanger Co., Philadelphia, Pa.
Quaker City Rubber Co., Philadelphia, Pa.
Republic Rubber Corp., The, Youngstown, O.
Triumph—New York Rubber Co., New York, N. Y.
Union Rubber Products Corp., New York, N. Y. (rubber.)
Wilbow—Williams-Bowman Rubber Co., Cicero, Ill.

BALLS, COPPER, FLAG POLE.

Harris, Arthur, & Co., Chicago, Ill.

BALLS, FULLER, FOR BIBBS AND COCKS

Algco—Auburn Leather Goods Co., Hartford, Conn.
Canfield Rubber Co., The, Bridgeport, Conn.
Cincinnati Rubber Mfg. Co., Cincinnati, O.

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Diamond Rubber Co., Inc., The, Akron, O.
Durst Mfg. Co., New York, N. Y.
Enduro—Woodward-Wanger Co., Philadelphia, Pa.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Frank Bros., New York, N. Y.
Garrison-Heiland Corp., New York, N. Y.
Good Mfg. Co., Inc, New York.
Goodrich, B. F., Rubber Co., The, Akron, O.
Indiana Rubber & Insulated Wire Co., Jonesboro, Ind.
Jenkins Bros., New York.
Lucky Strike—Lavelle Rubber Co., Chicago, Ill.
New York Belting & Packing Co., New York, N. Y.
Norwalk Mfg. Co., East Norwalk, Conn.
Peerless Mfg. & Supply Co., New York, N. Y.
Perfect—H. O. Canfield Co., Bridgeport, Conn.
Quaker City Rubber Co., Philadelphia, Pa.
Republic Rubber Corp., The, Youngstown, O.
Wilbow—Williams-Bowman Rubber Co., Cicero, Ill.

BALLS, STEEL.

(See also "Bearings, Ball, Machinery," and "Bearings, Ball.")

Abbott—The Abbott Ball Company, Hartford, Conn.
American—American Ball Co., Providence, R. I.
Atlas—Atlas Ball Co., New York, N. Y.
Auburn Ball Bearing Co., Rochester, N. Y.
Draper Mfg. Co., Port Huron, Mich.
D. W. F.—Peter A. Frasse & Co., Inc., New York.
Excelsior Steel Ball Co., Buffalo, N. Y.
Globe—Globe Machine & Stamping Co., Cleveland, O.
Holbol—Hollow Ball Co., Inc., Baltimore, Md.
Micro-Chrome—Hoover Steel Ball Co., Ann Arbor, Mich.
New Departure Mfg. Co., Bristol, Conn.
S K F Industries, Inc., New York.
Strom—Marlin-Rockwell Corp., Jamestown, N. Y.

BANDS, BAND SAW.

Cincinnati Rubber Mfg. Co., Cincinnati, O.
Continental Rubber Works, Erie, Pa
Diamond Rubber Co., The, Akron, O.
Goodrich—B. F. Goodrich Rubber Co., Akron, O.
Goodyear Tire & Rubber Co., The, Akron, O.
Mechanical Rubber Co., The, New York, N. Y.
U. S. Rubber Co., New York, N. Y.

BANDS, FORM.

Heckman Tool & Mfg. Co., Chicago, Ill.

BANDS, PIPE.

Gulf States Pipe Corp., Anniston, Ala.

BARRELS, BALL BURNISHING.

Baird Machine Co., The, Bridgeport, Conn.
Globe Machine & Stamping Co., Cleveland, O.
Grammes, L. F., & Sons, Allentown, Pa.
Henderson Bros., Waterbury, Conn.
New Abbott—Abbott Ball Co., Hartford, Conn.
Optimus, Acme—A. P. Munning & Co., Matawan, N. J.

BARRELS, SAND BLAST.

Buckeye—The Macleod Co., Cincinnati, O.
Hoevel Mfg. Corp., Jersey City, N. J.
Mott Sand Blast Mfg. Co., Inc., Chicago, Ill.
New Haven Sand Blast Co., New Haven, Conn.

BARRELS, SHOP.

Benco—Wilson & Bennett Mfg. Co., Chicago, Ill.
Cleveland Wire Spring Co., The, Cleveland, O.
Perfect—Detroit Range Boiler & Steel Barrel Co., Detroit, Mich.
Mullins Body Corp., Stamping Dept. A, Salem, O.
The Welded Steel Barrel Corp., Detroit, Mich.

BARRELS AND DRUMS, STEEL.

Anchor, Columbia—Meurer Steel Barrel Co., Inc., New York.
Benco—Wilson & Bennett Mfg. Co., Chicago, Ill.
Cleveland Wire Spring Co., The, Cleveland, O.
Columbian Steel Tank Co., Kansas City, Mo.
Columbiana Boiler Co., The, Columbiana, O.
Detroit, Perfect—Detroit Range Boiler & Steel Barrel Co., Detroit, Mich.
Draper Mfg. Co., Cleveland, O.
Electric Weld—John Wood Mfg. Co., Conshohocken, Pa.
Hackney—Pressed Steel Tank Co., Milwaukee, Wis.
Hackney, Presteel, Gem—Petroleum Iron Works, Sharon, Pa.
Improved Appliance Co., Brooklyn, N. Y.
Koven, L. O., & Bros., New York, N. Y.
Lyon—Lyon Metallic Mfg. Co., Aurora, Ill.
Mullins Body Corp., Stamping Dept. A, Salem, O.
Nesco—National Enameling & Stamping Co., Inc., New York, N. Y.
Ohio Mfg. Co., The, Painesville, O.
Republic Steel Package Co., Cleveland, O.
Riverside Boiler Works, Inc., Cambridge, Mass.
Toledo Steel Barrel Co., Chicago, Ill.
Trageser, John, Steam Copper Works, New York, N. Y.
W. & B.—Wilson & Bennett Mfg. Co., Chicago, Ill.
Welded Steel Barrel Corp., Detroit, Mich.
Wheeling Steel Products Co., Wheeling, W. Va.

BARRELS AND MILLS, TUMBLING.

Abbott—The Abbott Ball Co., Hartford, Conn.
Baird Machine Co., The, Bridgeport, Conn.
Barry—Barry Co., Muscatine, Iowa.
Caldwell & Son Co., H. W., Chicago, Ill.
Chain Belt Co., Milwaukee, Wis.
Columbiana Boiler Co., Columbiana, O.
Globe—The Globe Machine & Stamping Co., Cleveland, O.
Grammes, L. F., & Sons, Allentown, Pa.
Henderson Bros., Waterbury, Conn.
Ideal—Ideal Concrete Machinery Co., Cincinnati, O.
Improved Appliance Co., Brooklyn, N. Y.
Koven, L. O., & Bros., Jersey City, N. J.
MacLeod Co., The, Cincinnati, Ohio.
McCormick, J. S. Co., Pittsburgh, Pa.
Northern Engineering Works, Detroit, Mich.
Optimus, Acme—A. P. Munning & Co., Matawan, N. J.
Paxson, J. W., Co., Philadelphia, Pa.
Reliable—Dayton-Dowd Co., Quincy, Ill.
Royersford Foundry & Machine Co., Royersford, Pa.
Tessmer Machine & Tool Co., Detroit, Mich.

BARRELS, WORKING.

Chicago Well Supply Co., Chicago, Ill. (Double action.)
Cook, A. D., Inc., Lawrenceburg, Ind.
Franklin Valveless Engine Co., Franklin, Pa.
Hill Pump & Turbine Works, Anderson, Ind.
Hoosier—Flint & Walling Mfg. Co., Kendallville, Ind.
Hough Mfg. Co., Chas. N., Franklin, Pa. (oil well).
Luitwieler—Luitwieler Pumping Engine Co., Rochester, N. Y. (deep well).
McDonald Mfg. Co., A. Y., Dubuque, Ia.
McGregor—McGregor Working Barrel Co., Inc., Bradford, Pa.
Midland Mfg. Co., Fort Worth, Tex. (double stroke.) "Boicourt."
Myers, F. E., & Bro., Ashland, O.
Norris, W. C., Tulsa, Okla.
Samsco—San Antonio Machine & Supply Co., San Antonio, Tex.

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Texas Mfg. Co., Ft. Worth, Tex.
Weinman—Weinman Pump Mfg. Co., Columbus, O.
Yaller Hammer—The Pattin Bros. Co., Marietta, O.

BARS, BORING.

Agrippa—J. H. Williams & Co., Buffalo, N. Y.
Bullard Machine Tool Co., The, Bridgeport, Conn.
Chapin-Skelton Corp., Syracuse, N. Y.
Cleveland Twist Drill Co., Cleveland, O.
Davis Expansion Boring Tool Co., St. Louis, Mo.
Gisholt Machine Co., Madison, Wis.
Ingersoll Milling Machine Co., The, Rockford, Ill.
Kelly Reamer Co., The, Cleveland, O.
M. E. C. Expansion—The Manufacturers Equipment Co., Chicago, Ill.
Madison Adjustable—Madison Mfg. Co., Muskegon, Mich.
Niles-Bement-Pond Co., New York, N. Y.
Pedrick—Pedrick Tool & Machine Co., Philadelphia.
Red E—The Ready Tool Co., Bridgeport, Conn.
Rigid—Rigid Tool Holder Co., Washington, D. C.
Rooksby, E. J., & Co., Philadelphia, Pa.
Union Tool Co., Orange, Mass.
Universal Boring Machine Co., Hudson, Mass.

BARS, BRONZE, CORED AND SOLID.

American Manganese Bronze Co., Holmesburg, Philadelphia, Pa.
Ampco—American Metal Products Co., Milwaukee.
Atlas—Atlas Brass Foundry Co., The, Columbus, O.
Autocrat—United American Metals Corp., Brooklyn.
Bearium—Bearium Bearings, Inc., Boston, Mass.
Bronze Metal Co., New York, N. Y.
Buckeye Hy-Speed—The Buckeye Brass & Mfg. Co., Cleveland, O.
Bunting—Bunting Brass & Bronze Co., Toledo, O.
Cramp, Wm., & Sons Ship & Engine Building Co., The, Philadelphia, Pa.
Elephant—Phosphor Bronze Smelting Co., Philadelphia, Pa.
Federal-Mogul Corp., Detroit, Mich.
Fredericksen Company, Saginaw, Mich.
Gilbert, A., & Sons, Brass Foundry Co., St. Louis, Mo.
Gopher—Union Brass & Metal Mfg. So., St. Paul, Minn.
HarBronz—Arthur Harris & Co., Chicago, Ill.
Johnson Bronze Co., New Castle, Pa.
Machinebronze—Lumen Bearing Co., Buffalo, N. Y.
Mogul—Federal-Mogul Corp., Detroit, Mich.
Non Gran—American Non Gran Bronze Corp., Berwyn, Pa.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Schlangen Bros. Co., Chicago, Ill.
Sumet—Sumet Corporation, Buffalo, N. Y.
Williams "G"—E. A. Williams & Son, Inc., Jersey City, N. J.

Quaker Metal
the
"LADLE BRONZE"

Has the strength and wearing qualities of bronze, yet can be melted in a ladle and poured like babbitt.

Brinell hardness, 85.7. Tensile strength, 25,350 lbs. per sq. in. Compression (one inch cube) under 14,400 lbs. pressure, No Set. Elongation, one percent.

Sold only through Distributors. Write for literature.

Monarch Metal Co., 119 S. Lincoln St., Chicago

(See our Advertisement under "Metal, Bearing")

"SABECO"
REG. U. S. PAT. OFF.

BEARING BRONZE

To Mill Supply Dealers:

SABECO Bearing Bronze has now been on the market about six years. During this time it has been adopted by some of the largest and best known manufacturers for use in their product. We are now beginning a national advertising campaign that will tie SABECO in with these manufacturers and should create a demand for solid and cored bars of SABECO Bearing Bronze for general machine tool use.

We feel that under these conditions we are able to offer jobbers and mill supply houses a very attractive proposition. Further information and references will be sent to interested jobbers.

FREDERICKSEN COMPANY
932 South Water Street
SAGINAW, MICH.

BARS, KEYWAY CUTTING.

Lapointe Machine Tool Co., Hudson, Mass.
Threadwell Tool Co., Greenfield, Mass.

BARS, PERFORATED EXTENSION.

(See also "Hangers, Pipe, Perforated Strap.")

PERFORATED
HANGER IRON
In 5-foot and 10-foot strips
Complete stock of all sizes on hand for immediate shipment.
The Bettcher Stamping & Mfg. Co.
Cleveland, Ohio

Bettcher Stamping & Mfg. Co., The, Cleveland, O.
Blue Ribbon—Chicago Nipple Mfg. Co., Chicago, Ill.
Fitall—Consolidated Steel Strapping Co., Chicago, Ill.

BARS, PINCH AND PRY.

Braunsdorf-Mueller Co., Elizabeth, N. J.
Buffum Tool Co., Louisiana, Mo.
Cornwell—The Cornwell Quality Tools Co., Cuyahoga Falls, O.
Drew, C., & Co., Kingston, Mass.
Hargrave—The Cincinnati Tool Co., Cincinnati, O.
Horseshoe—Stanley Rule & Level Plant, Atha Dept., New Britain, Conn.
Hubbard & Co., Pittsburg, Pa.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Johnson, Wm., Firm of, Newark, N. J.
Leetonia Tool Co., The, Leetonia, O.
Mound—Mound Tool Co., St. Louis, Mo.
National Tool Co., New York, N. Y.
Perfect Handle—The H. D. Smith & Co., Plantsville, Conn.
Quikwerk—Warren Tool & Forge Co., The, Warren, Ohio.
Warwood Tool Co., Wheeling, W. Va.

BARS, POST HOLE DIGGING.

Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Lanz, M., Bolt Co., Pittsburgh, Pa.
Leetonia Tool Co., Leetonia, Ohio.

BARS, SINE.

Loway—A. F. Way Co., Inc., Hartford, Conn.

BARS, TAMPING.

Dicke Tool Co., The, Downers Grove, Ill.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Klein-Logan Co., The, Pittsburgh, Pa.
Lanz, M., Bolt Co., Pittsburgh, Pa.
Leetonia Tool Co., Leetonia, O.
Oliver Iron & Steel Corp., Pittsburgh, Pa.

BARS, TOWEL.

(See "Fittings and furnishings, bath and toilet room.")

BARS, WRECKING.

Anderson—Anderson Bros. Mfg. Co., Rockford, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Duffy Manufacturing Co., Chicago, Ill.
Hargrave—Cincinnati Tool Co., Cincinnati, O.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Johnson, William, Firm of, Newark, N. J.
Klein-Logan Co., The, Pittsburgh, Pa.
Leetonia Tool Co., The, Leetonia, O.
M. E. C. Expansion—The Manufacturers' Equipment Co., Chicago, Ill.
Marcy—Marcy Tool Works, Putnam, Conn.
Stanley Rule & Level Plant, Atha Dept., New Britain, Conn.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Verona Tool Works, Pittsburgh, Pa.
Vichek Tool Co., The, Cleveland, O.
Warren Tool & Forge Co., Warren, O.

BASES, ELECTRIC MOTOR.

Tension Motor Base Co., New York, N. Y.

BASES, OIL CUP.

Lonergan—J. E. Lonergan Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, O.
Powell, Wm., Co., The, Cincinnati, O.
White Star—Pittsburgh Gage & Supply Co., Pittsburgh, Pa.

BASES, RADIATOR.

Logan—Logansport Radiator Equipment Co., Logansport, Ind.
D-I—C. C. Shipp & Co., Indianapolis, Ind.
National Radiator Co., Johnstown, Pa.
Onward Mfg. Co., Menasha, Wis.
Pierce, Butler & Pierce Mfg. Corp., New York, N. Y.
Richmond Radiator Co., New York, N. Y.
Triton—United States Radiator Corp., Detroit, Mich.
Universal—Reading Heater & Supply Co., Reading, Pa.
Worcester Pressed Steel Co., Worcester, Mass.

BASES, "Y," FOR SAFETY VALVES.

The Consolidated Safety Valve Co., New York, N. Y.

BASINS, BLOW-OFF.

(See "Catch Basins, Blow-Off.")

BASKETS, DIPPING.

Buffalo Wire Works Co., Buffalo, N. Y.
Improved—Improved Appliance Co., Brooklyn, N. Y.
Jelliff, C. O., Mfg. Corp., Southport, Conn.
Sackett Screen & Chute Co., H. B., Chicago, Ill.
Usona Mfg. Co., St. Louis, Mo.

BASKETS, MILL.

Columbian Steel Tank Co., Kansas City, Mo.
Columbus Wire & Iron Works, Columbus, O.
Corco—Wheeling Corrugating Co., Wheeling, W. Va.
Fitts—Frank E. Fitts Mfg. & Supply Co., Boston, Mass.
Geuder, Paeschke & Frey Co., Milwaukee, Wis.
Hall Mfg. Co., Cedar Rapids, Ia.
Holbrook Raw Hide Co., Providence, R. I.
Lane, W. T., & Bros., Poughkeepsie, N. Y.
Lansing Co., Lansing, Mich.
Leatheroid—Rogers Fibre Co., Boston, Mass.
Morris Duck—Morris & Co., Inc., Groveville, N. J.
Steel Basket Co., Cedar Rapids, Ia.
Vul-Cot—American Vulcanized Fibre Co., Wilmington Del.

BASKETS, TOWEL.

Brasscrafters—J. P. Eustis Mfg. Co., Boston, Mass.
Calido—C. O. Jelliff Mfg. Corp., Southport, Conn.
Central Specialty Mfg. Co., Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Columbus Brass Co., Columbus, O.
Crane Co., Chicago, Ill.
Eastern Specialty Mfg. Co., Scranton, Pa.
Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Mott Iron Works, The J. L., Trenton, N. J.
Omala—The Galard Co., Newark, N. J.
Pallette—Searls Mfg. Co., Newark, N. J.
San-O-La—Art Brass Co., New York, N. Y.
Sanoid—Conant Bros. Co., Somerville, Mass.
Savill's, Thos., Sons, Philadelphia, Pa.
Silver & Co., Brooklyn, N. Y.
Smith, E. C., Mfg. Co., Chicago, Ill.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Universal—Landers, Frary & Clark, New Britain, Conn.
Usona Mfg. Co., St. Louis, Mo.

BATHS, CHILD'S.

Crane Co., Chicago, Ill.
Douglas, John, Co., Cincinnati, O.
Iron City Sanitary Mfg. Co., Pittsburgh, Pa.
Kohler Co., Kohler, Wis.
Locke, Stevens & Co., Boston, Mass.
Monument Pottery Co., Trenton, N. J. (Trade names—Columbia, Craythorn, Greenpoint, Pennsylvania.)
Mott, J. L., Iron Works, Trenton, N. J. (Trade names—Ellison, Harlem, Howell, Neponset, Roosevelt).
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Tepeco—Trenton Potteries Co., Trenton, N. J.
Walworth Company, Boston, Mass.

BATHS, FOOT.

Crane Co., Chicago, Ill.
Iron City Sanitary Mfg. Co., Pittsburgh, Pa.
Kohler Co., Kohler, Wis.
Monument Pottery Co., Trenton, N. J. (Trade names—Clermont, Clinton, Relevant.)
Rundle Mfg. Co., Milwaukee, Wis.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Tepeco—Trenton Potteries Co., Trenton, N. J.
Union Sanitary Works, Noblesville, Ind.
United States Sanitary Mfg. Co., Pittsburgh, Pa.
Walworth Company, Boston, Mass.
Washington Iron Works, Los Angeles, Cal.
Wolff Mfg. Corp., Chicago, Ill.

BATHS, NEEDLE AND SHOWER COMBINED.

(See also "Baths, Shower.")

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Neptune—Dalton-Ingersoll Mfg. Co., Boston, Mass.
Douglas, John, Co., Cincinnati, O.
Edwardsville Brass Works, Edwardsville, Ill.
Federal-Huber Co., Chicago, Ill.
Goetz Brass Co., Chicago, Ill.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Harlem—J. L. Mott Iron Works, Trenton, N. J.
Hoelscher Bros., Chicago, Ill.
Hudson Brass Works, Brooklyn, N. Y.
Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Kohler Co., Kohler, Wis.
Lehnert & Co., New York, N. Y.
Litterer Bros., Chicago, Ill.
M. V. B.—Morency Van Buren Mfg. Co., Sturgis, Mich.
Mott, J. L., Iron Works, Trenton, N. J. (Trade names—Perry, Raynor, Rector, Regent, Reina, Utility.)
Murray & Sorensen, New York, N. Y.
Niedecken—Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Peck Bros & Co., New Haven, Conn.
Ross & Gade Co., Inc., New York, N. Y.
Rundle-Spence Mfg. Co., Milwaukee, Wis.
Sanitas Mfg. Co., Boston, Mass.
Speakman Co., Wilmington, Del.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Wolff Mfg Corp., Chicago, Ill.

BATHS, PORCELAIN.

Avon—Wheeling Sanitary Mfg. Co., Wheeling, W. Va.
Clow, James B., & Sons, Chicago, Ill. (Trade names—Dalton, Windsor, Wolverine.)
Crane Co., Chicago, Ill. (Trade names—Columbia, Coronet, Doric, Chandos, Empress, Labrum, Linova, Linovus, Recess, Winston.)
Eljer Co., Ford City, Pa.
Ford's Porcelain Works, Inc., Perth Amboy, N. J.
General Ceramics Co., New York, N. Y.
Monument Pottery Co., Trenton, N. J. (Trade names—Brielle, Buckstaff, DuPont, Gotham, Stuyvesant, Troycove, Trayelle, Trayham, Traymore, Trayonto.)
Mott, J. L., Iron Works, The, Trenton, N. J. (Trade names—Baronial, Prescott, Pierpont, Pontiac, Putnam, Pomona, Universal.)
Pierce, Butler & Pierce Mfg. Corp., New York, N. Y. (Trade names—Pierce Fayette, Pierce Onondaga, Syracuse).
Sanitas Mfg. Co., Boston, Mass. (Trade names—Marshall, Monarch, Underwood.)
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Trenton Potteries Co., Trenton, N. J. (Trade names—Ambassador, Tepeco.)
Walworth Company, Boston, Mass.
Wolff Mfg. Corp., Chicago, Ill. (Trade names—Alvona, Pasadena, Traymore.)

BATHS, PORCELAIN ENAMELED.

Clow, James B., & Sons, Chicago, Ill.
Columbia Sanitary Mfg. Co., Louisville, Ky.
Conemaugh Iron Works Co., Latrobe, Pa.
Crane Co., Chicago, Ill. (Trade names—Asylum, Calida, Compacto, Dione, Doric, Doris, Labrum, Latona, Linova, Linovus, Medio, Modus, Nereis, New Undine, Unio, Verna.)
Crane Enamelware Co., Chattanooga, Tenn.

Humphryes Mfg. Co., The, Mansfield, O. (Trade names—Golden Gate, Hermoso, Larosa, Mayflower, Pilgrim, Plymouth, Priscilla, Puritan, Warwick.)
Iron City Sanitary Mfg. Co., Pittsburgh, Pa. (Trade names—Avon, Floradora, Irci, Modello, Regina, Rossmore, Victoria, Waverly.)
Jenkins Mfg. Co., Inc., Bloomfield, N. J. (Trade names—Belleville, Delanco, Glenwood, Milton, Stanton.)
Kohler Co., Kohler, Wis. (Trade names—Alcove, Baroness, Cardinal, Colonna, Imperator, Kohler, Rival, Viceroy.)
La Belle—Wheeling Sanitary Mfg. Co., Wheeling, W. Va.
Mott, J. L., Iron Works, Trenton, N. J. (Trade names—Crotona, Eldon, Elmo, Euclid, Emerson, Everett, Eclipso, Eutaw, Layton.)
National Sanitary Mfg. Co., The, Salem, O. (Trade names—Primula, Salvia, Torenia.)
Nova—The Peck Bros. & Co., New Haven, Conn.
Pierce, Butler & Pierce Mfg. Corp., New York, N. Y. (Trade names—Manhattan, Mascot, Pierce Fayette, Pierce Onondaga, Syracuse.)
Pluvic—The Hydraulic Specialty Co., Philadelphia.
Richmond Radiator Co., New York, N. Y.
Rundle Mfg. Co., Milwaukee, Wis.
Sanitas Mfg. Co., Boston, Mass. (Trade names—Albemarle, Crown, Emperor, Empire, Hoffman, Lethean, Niobe, Quincy, Standish, Wakefield.)
Saxon—The John Douglas Co., Cincinnati, O.
Standard Sanitary Mfg. Co., Pittsburgh, Pa. (Trade names—Adonis, Adopto, Arlene, Bristol, Brockley, Cadmus, Carlisle, Clarion, Conred, Cornell, Elysian, Essex, Glenroy, Keystone, Knickerbocker, Lacon, Lascar, Lawrence, Legnon, Levant, Linwood, Lorraine, Luxor, Madeline, Majestic, Malvern, Marwood, Maynard, Meteor, Metropole, Monarch, Morris, Narrorim, Occident, Olympia, Oranton, Piercon, Pool, Premier, Princeton, Receptors, Rockton, Rome, Recona, Royal, Shawmut, Simplo, Walton.)
Union Sanitary Works, Noblesville, Ind. (Trade names—Beryl, Comfort, Emperor, Hoosier, Infants, Modern, Nobbe, Narro, Premier, Sitz, Tilein, Dignon, Marnon, Grandon, Ovolo.)
United States Sanitary Mfg. Co., Pittsburgh, Pa. (Trade names—Alco, Anglo, Climax, Minerva.)
Walls, Owen & Stambach Co., Philadelphia, Pa. (Trade names—Bala, Hamilton, Kineo, Pinehurst, Rialto, Supreme, Wosco.)
Walworth Company, Boston, Mass.
Washington Iron Works, Los Angeles, Cal. (Trade names—Boudoir, California, Catalina, Fresno, Gramercy, Riverside, Victory.)
Weiskittel, A., & Son Co., Baltimore, Md. (Trade names—Cassia, Countess, Empress, Peerless, Princess.)
Wheeling Sanitary Mfg. Co., Wheeling, W. Va.
Wolff Mfg. Corp., Chicago, Ill. (Trade names—Berkeley, Corona, Lethean, Planet, Star.)

BATHS, SEAT

American—James B. Clow & Sons, Chicago, Ill.
Avon—Wheeling Sanitary Mfg. Co., Wheeling, W. Va.
Iron City Sanitary Mfg. Co., Pittsburgh, Pa.
Kohler Co., Kohler, Wis. (Trade names—Athearn, Brevort, Nautica, Ninon.)
Monument Pottery Co., Trenton, N. J. (Trade names—Monument, Relevant.)
Mott, J. L., Iron Works, The, Trenton, N. J. (Trade names—Latona, Linden, Lisbon, Laxton.)
Novus—Wolff Mfg. Corp., Chicago, Ill.
Rundle Mfg. Co., Milwaukee, Wis
Situs—Crane Co., Chicago, Ill.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Tepeco—Trenton Potteries Co., Trenton, N. J.
Washington Iron Works, Los Angeles, Cal.
Weiskittel, A., & Son Co., Baltimore, Md.

BATHS, SHOWER.

Art Brass Co., New York, N. Y.
C. & D.—Coyne & Delany Co., Brooklyn, N. Y.
Cleveland Blow Pipe & Mfg. Co., Cleveland, Ohio.
Columbia—Hoelscher Bros., Chicago, Ill.
Crane Co., Chicago, Ill.
Douglas, John Co., The, Cincinnati, Ohio.
Edwardsville Brass Works, Edwardsville, Ill.
Federal-Huber Co., Chicago, Ill.
Goetz Brass Co., Chicago, Ill.
Garrison-Heiland Corp., New York, N. Y.
Harlem—The J. L. Mott Iron Works, Trenton, N. J.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Hudson Brass Works, Brooklyn, N. Y.
Imperial Brass Mfg. Co., Chicago, Ill.
Jenkins Mfg. Co., Inc., Bloomfield, N. J. (Trade names—Sanos, Windsor.)
Keeney Mfg. Co., The, Newington, Conn.
Kenney-Cutting Products Corp., The, New York, N. Y.
Kohler Co., Kohler, Wis.
Lehnert & Co., New York, N. Y.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Milwaukee Flush Valve Co., Milwaukee, Wis.
M. V. B. Temporator—Morency-Van Buren Mfg. Co., Sturgis, Mich.
Niedecken—Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Ross & Gade Co., Inc., New York, N. Y.
Royal Brass Mfg. Co., Cleveland, Ohio.
Rundle Mfg. Co., Milwaukee, Wis.
Rundle-Spence Mfg. Co., Milwaukee, Wis.
Sanitas Mfg. Co., Boston, Mass.
Silver & Co., Brooklyn, N. Y.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Speakman Co., Wilmington, Del.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Test-Tite—Test-Tite Co., Philadelphia, Pa.
Walworth Company, Boston, Mass.
Weiskittel, A., & Son Co., Baltimore, Md.
Wolff Mfg. Corp., Chicago, Ill.

BATHS, SHOWER, INDUSTRIAL.

Goetz Brass Co., Chicago, Ill.

BATHS, SHOWER, PORTABLE.

Ampinco—American Pin Co., Waterbury, Conn.
Beekman—Garrison-Heiland Corp., New York, N. Y.
Belmont—Coyne & Delany Co., Brooklyn, N. Y.
Brasscrafters—J. P. Eustis Mfg. Co., Boston, Mass.
Central Specialty Mfg. Co., Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill. "Modus," "Unio."
Edwardsville Brass Works, Edwardsville, Ill.
Elgin Shower—Elgin Brass Co., New York, N. Y.
Federal-Huber Co., Chicago, Ill.
Goetz Brass Co., Chicago, Ill.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Hudson Brass Works, Brooklyn, N. Y.
Keeney Mfg. Co., The, Newington, Conn.
Kenney—The Kenney-Cutting Products Corp., New York, N. Y.
Lehnert & Co., New York, N. Y.
Luxuria—A. Weiskittel & Son Co., Baltimore, Md.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Milwaukee Flush Valve Co., Milwaukee, Wis.
Niedecken—Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Republic Brass Co., Cleveland, O.
Royal Brass Mfg Co., Cleveland, O.
Rundle Mfg. Co., Milwaukee, Wis.
Sensible—The Peck Bros. & Co., New Haven, Conn.
Smith, E. C., Mfg. Co., Chicago, Ill.
Speakman Co., Wilmington, Del.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Sterling Brass Co., Cleveland, O.
Superior—Superior Brass Novelty Co., New York.
Tubekraft—The Tubular Products Co., Southington, Conn.
Walworth Company, Boston, Mass.
Webco—F. W. Webb Mfg. Co., Boston, Mass.
Western Beauty—Street & Kent Mfg. Co., Chicago, Ill.
YCo—Loyal Brass Co., Cleveland, O.

BATHS, TINNING.

Buzzer—Chas. A. Hones, Inc., Baldwin, L. I., N. Y.

BATTERIES, DRY CELL.

Eveready—National Carbon Co., Inc., New York, N. Y.
Burgess Battery Co., Madison, Wis.
Economy Electric Lantern Co., Chicago, Ill.
Federal Electric Co., Chicago, Ill.
French Battery & Carbon Co., Madison, Wis.
Manhattan Electrical Supply Co., New York, N. Y.
Western Electric Co., Chicago, Ill.

BEARINGS, BALL, LINESHAFT.

Chicago Pulley & Shafting Co., Chicago, Ill.
Fafnir Red Dragon—The Fafnir Bearing Co., New Britain, Conn.
Holbol—Hollow Ball Co., Inc., Baltimore, Md.
N. D. N. Corp., Boston, Mass.
S. K. F.—S. K. F. Industries, Inc., New York.
Skayef Ball Bearing Co., The, New York, N. Y.
Transmission Ball Bearing Co., Inc., Buffalo, N. Y.
Weller Mfg. Co., Chicago, Ill.
Wood-Fafnir—T. B. Wood Sons Co., Chambersburg, Pa.

BEARINGS, BALL, MACHINERY.

Abbott—The Abbott Ball Company, Hartford, Conn.
Aetna Ball Bearing Mfg. Co., Chicago, Ill.
Ahlberg Bearing Co., Chicago, Ill
Atlas—Atlas Ball Co., New York, N. Y
Auburn Ball Bearing Co., Rochester, N. Y.
Bantam Ball Bearing Co., Bantam, Conn.
B-N-Long Life—Burgess-Norton Mfg. Co., Geneva, Ill.
Bower Roller Bearing Co., Detroit, Mich.
Commercial—Schatz Mfg. Co., The, Poughkeepsie, N. Y.
Fafnir—The Fafnir Bearing Co., New Britain, Conn.
G.-A., S. G. A.—G.-A. Ball Bearing Mfg. Co., Chicago.
Hess-Bright, Monarch—S. K. F. Industries, Inc., New York, N. Y.
Holbol—Hollow Ball Co., Inc., Baltimore, Md.

Hoover Steel Ball Co., Ann Arbor, Mich.
L-S-A—Langhaar Ball Bearing Co., Aurora, Ind.
New Departure Mfg. Co., The, Bristol, Conn.
Nice Ball Bearing Co. Philadelphia, Pa.
Norma—Norma-Hoffman Bearings Corp., Stamford Conn.
Salisbury Ball Bearing Corp., Jamestown, N. Y.
Schatz Universal—The Federal Bearings Co., Inc., Poughkeepsie, N. Y.
Standard Machinery Co., Providence, R. I.
Transmission Ball Bearing Co., Inc., The, Buffalo, N. Y.

BEARINGS AND BUSHINGS, BRASS AND BRONZE.

Agrilite—American Injector Co., Detroit, Mich.
Ajax Metal Co., Philadelphia, Pa.
American Tool & Machine Co., Boston, Mass.
Arctic, Tiger—More-Jones Brass & Metal Co., St. Louis, Mo.
Arguto Oilless Bearing Co., Philadelphia, Pa.
Atlas Brass Foundry Co., Columbus, O.
Autocrat—United American Metals Corp., Brooklyn, N. Y.
Ball & Roller Bearing Co., Danbury, Conn.
Barnard & Lees Mfg. Co., Moline, Ill.
Bearium Bearings, Inc., Boston, Mass.
Bond Foundry & Machine Co., Manheim, Pa.
Brady Brass Co., Jersey City, N. J.
Bronze Metal Co., New York, N. Y.
Brown, A. & F., Co., The, Elizabeth, N. J.
Buckeye Hy-Speed—The Buckeye Brass & Mfg. Co., Cleveland, O.
Bunting Brass & Bronze Co., Toledo, O.
Chicago Pulley & Shafting Co., Chicago, Ill.
Damascus Bronze Co., Pittsburgh, Pa.
Dodge Mfg. Corp., Mishawaka, Ind.
Edna Brass Mfg. Co., Cincinnati, O.
Franz-Holbrook Bronze Co., Newark, N. J.
Fredericksen Company, Saginaw, Mich.
G. B., Hard Rolled—The Cleveland Graphite Bronze Co., Cleveland, O.
Gilbert—A. Gilbert & Sons Brass Fdy. Co., St. Louis, Mo.
Gopher—Union Brass & Metal Mfg. Co., St. Paul, Minn.
Hall Mfg. Co., Harrison, N. J.
Hanson—Hanson Clutch & Machinery Co., Tiffin, O.
HarBronz—Arthur Harris & Co., Chicago, Ill.
Hill Collar Oiling—The Hill Clutch Machine & Foundry Co., Cleveland, O.
Hoyt Metal Co., St. Louis, Mo.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Hunter—James Hunter Machine Co., North Adams, Mass.
Johnson Bronze Co., New Castle, Pa.
Lawrenceville Bronze Co., Pittsburgh, Pa.
Link-Belt Company, Chicago and Philadelphia.
Lumen—Lumen Bearing Co., Buffalo, N. Y.
M. C. B. Standard—St. Louis Malleable Casting Co., St. Louis, Mo.
Metal Saw & Machine Co., Springfield, Mass.
Michigan Smelting & Refining Co., Detroit, Mich.
Mogul—Federal-Mogul Corp., Detroit, Mich.
National—National Foundry & Mfg. Co., Williamsport, Pa.
National Malleable Casting Co., The, Cleveland, O.
Naylor Bros., Peekskill, N. Y.
Non Gran—American Non-Gran Bronze Corp., Berwyn, Pa.
Nordyke & Marmon, Inc., Indianapolis, Ind.
North Star Foundry Co., Minneapolis, Minn.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Parker White Metal & Machine Co., Erie, Pa.
Phosphor Bronze Smelting Co., The, Philadelphia, Pa.
Pittsburgh Bronze Casting Co., Pittsburgh, Pa.
Pittsburgh White Metal Co., Pittsburgh, Pa.
Promet—American Crucible Products Co., Elyria, O.
Reeves, Paul S., & Co., Philadelphia, Pa.
Rex—Chain Belt Co., Milwaukee, Wis.
Rhoades, R. W., Metaline Co., Inc., Long Island City, N. Y. "Metaline."
Richardson, Edro, Brass Co., Baltimore, Md.
Sauer Power Generating Co., Pittsburg (adjustable).
Sherwood Mfg. Co., Buffalo, N. Y.
Standard Pressed Steel Co., Jenkintown, Pa. (Trade names—Collar End, Extra Long, Solid No. 1, Standard.)
Star—U. T. Hungerford Brass & Copper Co., New York, N. Y.
Sumet Corporation, Buffalo, N. Y. "Sumet."
Suspension Bearing Co., Spartanburg, S. C.
Torrey Roller Bushing Co., Bath, Me.
20th Century Brass Works, Inc., Minneapolis, Minn.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Western Block Co., Lockport, N. Y.
Wheland Co., The, Chattanooga, Tenn
Zenite Metal Co., Indianapolis, Ind.

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Cleveland Type—The Hill Clutch Machine & Foundry Co., Cleveland, Ohio.
Dodge Mfg. Corp., Mishawaka, Ind.
Link-Belt Co., Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
Weller Mfg. Co., Chicago, Ill.
The Wolf Company, Chambersburg, Pa.

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American Tool & Machine Co., Boston, Mass.
Hanson Clutch & Machinery Co., Tiffin, O.
Link-Belt Company, Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
Nordyke & Marmon, Inc., Indianapolis, Ind.
Transmission Ball Bearing Co., Inc., The, Buffalo, N. Y.
Weller Mfg. Co., Chicago, Ill.

BEARINGS, QUILL.

Brown, A. & F., Co., The, Elizabeth, N. J.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Medart Company, The, St. Louis, Mo.
Wood, T. B., Sons Company, Chambersburg, Pa.

BEARINGS, ROLLER, LINESHAFT.

Caldwell, H. W., & Son Company, Chicago, Ill.
Commercial—Bond Foundry & Machine Co., Manheim, Pa.
Dodge Mfg. Corp., Mishawaka, Ind. "Dodge-Timken."
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hyatt—Hyatt Roller Bearing Co., Newark, N. J.
Makutchan—Wm. E. Pratt Mfg. Co., Chicago, Ill.
The Reeves—Reeves Pulley Co., Columbus, Ind.
Roller Bearing Co. of America, Newark, N. J.
S. K. F.—S. K. F. Industries, Inc., New York, N. Y.
Royersford Foundry & Machine Co., Royersford, Pa. "Sells."
Transmission Ball Bearing Co., Buffalo, N. Y.
Weller Mfg. Co., Chicago, Ill.

BEARINGS, ROLLER, MACHINERY.

American Roller Bearing Co., Pittsburg, Pa.
Ball & Roller Bearing Co., The, Danbury, Conn.
Bantam Ball Bearing Co., Bantam, Conn.
Bond Foundry & Machine Co., Manheim, Pa.
Bower—Bower Roller Bearing Co., Detroit, Mich.
Caldwell & Son Co., H. W., Chicago, Ill.
Gillette Roller Bearing Co., Grand Rapids, Mich.
Hart Staggered, Orange—The Hart Roller Bearing Co., Orange, N. J.
Hill Clutch Machine & Foundry Co., The, Cleveland, O.
Hoffman—Norma-Hoffman Bearings Corp., Stamford, Conn.
Hyatt—Hyatt Roller Bearing Co., Newark, N. J.
M. D. W., Rollway—Rollway Bearing Co., Inc., Syracuse, N. Y.
Roller Bearing Company of America, Newark, N. J
Standard Machinery Co., Providence, R. I.
Timken Roller Bearing Co., Canton, O. "Timken." "Bock."
Weller Mfg. Co., Chicago, Ill.

BEARINGS, ROLLING MILL.

Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Medart Company, The, St. Louis, Mo.

BEARINGS, SELF-LUBRICATING.

American Vulcanized Fibre Co., Wilmington, Del.
Arguto—Arguto Oilless Bearing Co., Philadelphia, Pa
Barry Co., Muscatine, Iowa.
Bond Foundry & Machine Co., Manheim, Pa.
Bound Brook Oil-Less Bearing Co., Bound Brook, N. J
Brown, A. & F., Co., The, Elizabeth, N. J.
Caldwell, H. W., & Son Co., Chicago, Ill.
Dodge Mfg. Corp., Mishawaka, Ind.
Hanson Clutch & Machinery Co., Tiffin, O.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Jeffrey Mfg. Co., The, Columbus, O.
Link-Belt Company, Chicago and Philadelphia.
Mechanical Devices Co., Aurora, Ill.
Medart Company, The, St. Louis, Mo.
Neveroil Bearing Co., Wakefield, Mass. (Trade names—Graphex, Nevva-oil.)
Nigrum—Graphite Lubricating Co., Bound Brook, N. J.
Nolu—Nolu Oilless Bearing Co., Philadelphia.
Nordyke & Marmon, Inc., Indianapolis, Ind.
O. & S. Bearing Co., Detroit, Mich.
Randall—Randall Graphite Products Corp., Chicago.
Reliance—Metal Saw & Machine Co., Inc., Springfield, Mass.
Rhoades, R. W., Metaline Co., Long Island City, N. Y. "Metaline."
Royersford Foundry & Machine Co., Royersford, Pa.
S. K. F.—S. K. F. Industries, Inc., New York, N. Y.
Torrey Roller Bushing Works, Bath, Me.
Transmission Ball Bearing Co., Inc., The, Buffalo, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

BEARINGS, SHAFT, RING, WICK AND CHAIN OILING.

Barnard & Leas Mfg. Co., Moline, Ill.
Bond Foundry & Machine Co., Manheim, Pa.
Brown, A. & F., Co., The, Elizabeth, N. J.
Caldwell, H. W., & Son Co., Chicago, Ill.
Chicago Pulley & Shafting Co., Chicago, Ill.
Cresson Morris Co., Philadelphia, Pa.
Dodge Mfg. Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., Kent, Ohio.
Hill Collar Oiling—The Hill Clutch Machine & Foundry Co., Cleveland, O.
Jeffrey Mfg. Co., Columbus, O.
Jones—W. A. Jones Fdy. & Machine Co., Chicago.
Link-Belt Company, Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
Pioneer—Standard Pressed Steel Co., Jenkintown, Pa.
Sellers, William, & Co., Inc., Philadelphia, Pa.
Royersford Foundry & Machine Co., Royersford, Pa "Sells."
Transmission Ball Bearing Co., Inc., The, Buffalo, N. Y.
Weller Mfg. Co., Chicago, Ill.
Wood, T. B., Sons Company, Chambersburg, Pa.

BEARINGS, SHAFT, STEP.

American Tool & Machine Co., Boston, Mass.
Brown, A. & F., Co., The, Elizabeth, N. J.
Caldwell, H. W., & Son Co., Chicago, Ill.
Dodge Mfg. Corp., Mishawaka, Ind.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Company, Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
Nordyke & Marmon, Inc., Indianapolis, Ind.
Weller Mfg. Co., Chicago, Ill.
Wood, T. B., Sons Company, Chambersburg, Pa.

BEARINGS, SHAFT, WALL.

American Tool & Machine Co., Boston, Mass.
Boston Gear Works, Norfolk Downs, Mass.
Caldwell, H. W., & Son Co., Chicago, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Link-Belt Co., Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
Nordyke & Marmon, Inc., Indianapolis, Ind.
Transmission Ball Bearing Co., Inc., The, Buffalo, N. Y.
Weller Mfg. Co., Chicago, Ill.

BEARINGS, TAKE-UP.

Brown, A. & F., Co., The, Elizabeth, N. J.
Caldwell, H. W., & Son Co., Chicago, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Link-Belt Company, Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
Montgomery Coal Washing & Mfg. Co., Birmingham, Ala
Transmission Ball Bearing Co., Buffalo, N. Y. (ball-bearing.)
Weller Mfg. Co., Chicago, Ill.

BEARINGS, THRUST.

American Tool & Machine Co., Boston, Mass.
Bantam Ball Bearing Co., Bantam, Conn.
Fafnir Red Dragon—The Fafnir Bearing Co., New Britain, Conn.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Medart Company, The, St. Louis, Mo.
Norma-Hoffman Bearings Corp., Stamford, Conn.
Timken Roller Bearing Company, The, Canton, Ohio.
Weller Mfg. Co., Chicago, Ill.

BEARINGS, VERTICAL.

Caldwell, H. W., & Son Co., Chicago, Ill.
Dodge Mfg. Corp., Mishawaka, Ind.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
S. K. F.—S. K. F. Industries, Inc., New York, N. Y.
Standard Pressed Steel Co., Jenkintown, Pa.

BEARINGS, WATER-COOLED.

The Hill Clutch Co., Cleveland, Ohio.

BELT LACERS AND HOOKS.

(See also "Fasteners, Belt.")

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Detroit—Detroit Belt Lacer Co., Detroit, Mich.
Jackson Belt Lacers—Birdsboro Steel Fdy. & Mach. Co., Birdsboro, Pa.
Peerless—Peerless Belt Lacing Machine Co., Philadelphia.

BELT SPLICERS.

Prims, J. C., Hornell, N. Y.

BELT TREATMENT.

Renovatol Company, Philadelphia, Pa.

BELTING, ABRASIVE.

Armour Sand Paper Works, Chicago, Ill.
Behr, Herman, & Co., Inc., Brooklyn, N. Y. (Trade names—Adamant, Adamite, Brooklyn, Buffum, Carbicon, Closekote, Empire, Openkote, Ruby.)
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Victor-Balata—Victor-Balata & Textile Belting Co., New York, N. Y

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Chesapeake—The Chesapeake Belting Co., Baltimore, Md.
Crown—Page Belting Co., Concord, N. H.
Curry—J. W. Curry Co., Cincinnati, O.
Dickbelt—R. & J. Dick Co., Inc., Passaic, N. J.
The Dixie Belt—The Gandy Belting Co., Baltimore
Durco-Belt—Duryea Mfg. Co., Bayonne, N. J.
Emsco—E. M. Smith Co., Los Angeles, Cal.
Ensign—Olmsted-Flint Corp., Cambridge, Mass.
Federal—Federal Belting Co., Baltimore, Md.
The Gandy Belt—Gandy Belting Co., The, Baltimore.
Gilmer—L. H. Gilmer Co., Philadelphia, Pa.
Hemek—Manheim Mfg. & Belting Co., Manheim, Pa.
Hettrick—The Hettrick Mfg. Co., Toledo, O.
Hoo Hoo—National Leather Belting Co., New York.
Ibeco—Imperial Belting Co., Chicago, Ill.
Invincible—J. W. Buckley Rubber Co., New York, N. Y.
Johnson Belting Co., New York, N. Y. "Gibraltar."
King Cotton—Chesapeake Belting Co., Baltimore, Md
Live Oak—Pioneer Rubber Mills, San Francisco, Cal.
Lord Baltimore, Ruby—American Belting Companies, Baltimore, Md.
Main Belting Co., Philadelphia, Pa.
Manheim Mfg. & Belting Co., Manheim, Pa. "Python."

McIlroy Belting Works, Hammond, Ind. "Black Giant," "Rubberite."
Mechanical Rubber Co., The, Cleveland, Ohio. (Trade names—Bullseye, Burro, Inferno, Raven, Sulfumo, Trojan, Waxo.)
Ne-Pac—Capen Belting & Rubber Co., St. Louis, Mo.
Pennant—Olmsted-Flint Corp., Cambridge, Mass.
Perfection Red—Bonner & Barnewall, Inc., New York.
Rexall, Sahara, Antisulpho, Sanital, Submarine—Imperial Belting Co., Chicago, Ill.
Ruboil—Ruboil Belting Co., Philadelphia, Pa.
Salisbury & Co., Inc., W. H., Chicago, Ill.
Senegal, Seminole, Cherokee—The Rossendale-Reddaway Belting & Hose Co., Newark, N. J.
Stanwell—Fenwick-Reddaway Mfg. Co., Newark, N. J.
The Thermo-Gandy Belt—The Gandy Belting Co., Baltimore, Md.
Union Rubber & Asbestos Co., Trenton, N. J. "Imp." "Red Bird."
United States Rubber Co., New York, N. Y.
Victor-Balata & Textile Belting Co., New York, N. Y. "Ampere," "V-B."

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(See also "Chain, Transmission.")

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Caldwell & Son Co., H. W., Chicago, Ill.
Chain Belt Co., Milwaukee, Wis.
Codd Co., E. J., Baltimore Md.
Dodge Mfg. Corp., Mishawaka, Ind.
Howe Chain Co., Muskegon, Mich.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Co., Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
Morse Chain Co., Ithaca, N. Y.
Page Belting Co., Concord, N. H.
Union Engineering Co., Cleveland, Ohio.
Webster—Webster Mfg. Co., Chicago, Ill.
Whitaker Mfg. Co., The, Chicago, Ill.

BELTING, COMBINATION OF LEATHER AND FABRIC.

Black Belt Corporation, Jamestown, N. Y.
Gutta Percha & Rubber Mfg. Co., New York
Innerduck—The Hettrick Mfg. Co., Toledo, O.
McIlroy Belting Works, Hammond, Ind. "Whale."
Peerless Belting Co., Gardenville, N. Y.
Underwood—The William Sumner Belting Co., Tolland, Conn.
Union—Hall & Cary Weaving & Belting Co., Inc., Lockport, N. Y.
Weller Mfg. Co., Chicago, Ill.

BELTING, COMPOSITION.

Burmaline—Burrell Belting Co., Chicago, Ill.
Fabreeka—Fabreeka Belting Co., Boston, Mass.
Olmsted, W. I., Boston, Mass.
Teon—D. P. Brown & Co., Philadelphia, Pa.
Ton-Tex Corporation, New York, N. Y.

BELTING, CONVEYOR AND ELEVATOR.

(See also "Belting, Cotton, Solid," and "Belting, Canvas Stitched.")

Ajax—Gutta Percha Rubber Co., New York, N. Y.
Akron—B. F. Goodrich Rubber Co., Akron, Ohio.
American Rubber Mfg. Co., Oakland, Cal.
Arno, Hontas, Pacemaker—Cincinnati Rubber Mfg. Co., Cincinnati, O.
B. F. G.—B. F. Goodrich Rubber Co., Akron, Ohio.
Boston Woven Hose & Rubber Co., Cambridge, Mass. (Trade names—Damascus, Iron Clad, Olympia, Silver King.)
Clermont, Hi-Test, Hudson—Hudson Mechanical Rubber Co., New York.
Conveyor—Cincinnati Rubber Mfg. Co., Cincinnati, O.
Cost Cutter—B. F. Goodrich Rubber Co., Akron, Ohio.
Crown—Quaker City Rubber Co., Philadelphia, Pa.
Desert—Quaker City Rubber Co., Philadelphia, Pa.
Diamond Rubber Co., Inc., The, Akron, O. (Trade names—Diamond Tripper, Diamond Conveyor, Diamond Ore, Gravity, Kohinoor, Portage Ore, Elevay, Grainvey.)
Dickbelt—R. & J. Dick Co., Inc., Passaic, N. J.
Ebony—Burrell Belting Co., Chicago, Ill.
Economy—The B. F. Goodrich Rubber Co., Akron, O.
Empire Tire & Rubber Corp., Trenton, N. J. (Trade names—Empire Red, King, Stonewall.)
Endurance—Hamilton Rubber Mfg. Co., Trenton, N. J.
Franklin—Franklin Cotton Mill Co., The., Cincinnati, O.
Gandy Belting Co., The, Baltimore, Md. (Trade names—Gandy, Thermo-Gandy, Dixie.)
Gilmer—L. H. Gilmer Co., Philadelphia, Pa.
Goodall Rubber Co., Inc., Philadelphia, Pa.
Goodyear Tire & Rubber Co., Akron, O. (Trade names—Sanitary, Stacker, Klingtite.)
Grain Belt—The B. F. Goodrich Rubber Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., New York. (Trade names, Circle, Four C, Hot Char, Special Elevator.)
Haroco Balata Belting Co., Inc., New York, N. Y.
Hettrick Mfg. Co., Toledo, O.
Hewitt Rubber Co., Buffalo, N. Y. (Trade names—Dogwood, Karimor, Hollywood, Magnus, Conservo.)
Link-Belt Company, Chicago, Ill.
Lion Paw—Buckner Process Co., Worcester, Mass.
Long Life—The B. F. Goodrich Rubber Co., Akron, O.
Main Belting Co., Philadelphia, Pa.
Maltese Cross—Gutta Percha Rubber Mfg. Co., New York.
Manhattan Rubber Mfg. Co., The, Passaic, N. J.
Maxecon—The B. F. Goodrich Rubber Co., Akron, O.
Mechanical Rubber Co., Cleveland, Ohio. (Trade names—Aetna, Buckeye, Bullseye, Burro, High Grade, Inferno, Marco, Sulfumo, Trojan, 2XL, Waxo.)
Pennant—Olmsted Flint Corp., Cambridge, Mass.
Pioneer Rubber Mills, San Francisco, Cal. (Trade names—Golden Gate, Reliance, Sunset.)
Python—Manheim Mfg. & Belting Co., Manheim, Pa
R. F. & C.—Buffalo Weaving & Belting Co., Buffalo.
Republic Rubber Co., Youngstown, O. (Trade names—Challenge, Chariot, Crusher, Duration, Excel, Excelo, Hot Stuff, Producer, Record Maker, Republic, Super Excelo, Tower.)
Rex—Chain Belt Co., Milwaukee, Wis.
Rexall, Sahara, Anti-Sulpho, Submarine, Sanital—Imperial Belting Co., Chicago, Ill.
Rossendale-Reddaway Belting & Hose Co., The, Newark, N. J.
Royal—Allied Belting Co., Greenville, O.
Ruboil—Ruboil Belting Co., Philadelphia, Pa.
Russell Mfg. Co., The, Middletown, Conn.
Salisbury & Co., Inc., W. H., Chicago, Ill.
Special Planer, Triple Star—New York Belting & Packing Co., New York, N. Y.
Stanley Belting Corp., Chicago, Ill.
Thermoid Rubber Co., 248 Chestnut st., Philadelphia, Pa.
Triangle D—Gutta Percha & Rubber Mfg. Co., New York.
Union Rubber & Asbestos Co., Trenton, N. J.
United States Rubber Co., New York, N. Y.
Victor-Balata & Textile Belting Co., New York.
Voorhees Rubber Mfg. Co., Jersey City, N. J. "American," "Bostwick," "Sentinel," "Ultimate," "Union."
Wooster—Duryea Mfg. Co., Bayonne, N. J.

BELTING, CONVEYOR, STEEL AND WIRE.

Michigan Wire Cloth Co., Detroit, Mich.
Hercules—La Porte Mat & Mfg. Co., La Porte, Ind.
Sandvik Steel, Inc., New York, N. Y.

BELTING, COTTON, SOLID.

Alfalfa—Burrell Belting Co., Chicago, Ill.
Buckley, J. W., Rubber Co., New York, N. Y.
Buffalo Weaving & Belting Co., Buffalo, N. Y. (Trade names—Buffalo, R. F., R. F. & C.)
Climax—Fenwick-Reddaway Mfg. Co., Newark, N. J
Curry, Endless Woven—J. W. Curry Co., Cincinnati, O.
Durbar—Rossendale-Reddaway Belting & Hose Co., The, Newark, N. J.
Durwyllan Co., Paterson, N. J.
Ebony—Burrell Belting Co., Chicago, Ill.
Empire, Nubian—Hall & Cary Weaving & Belting Co., Inc., Lockport, N. Y.
Gilmer—L. H. Gilmer Co., Philadelphia, Pa.
Globe Woven Belting Co., Buffalo, N. Y.
Imperial Belting Co., Chicago, Ill.
Interwoven—The Chesapeake Belting Co., Baltimore, Md.
Jontex—National Leather Belting Co., New York, N. Y.
Lenox—Russell Mfg. Co., Middletown, Conn.
Lion Paw—Buckner Process Co., Worcester, Mass.
Lockwoven—Mount Vernon Belting Co., Baltimore, Md.
McIlroy Belting Works, Hammond, Ind. "Rubberite."
Rusco—Russell Mfg. Co., Middletown, Conn.
Salco—W. H. Salisbury & Co., Inc., Chicago, Ill.
Scandinavia—Scandinavia Belting Co., New York, N. Y.
Smith, Manning J., Belting Co., Germantown, Philadelphia, Pa.
Soltex—Bonner & Barnewall, Inc., New York, N. Y.
Stanley Belting Corp., Chicago, Ill.
Sumner Belting Co., The William, Tolland, Conn.
Thermo-Gandy—The Gandy Belting Co., Baltimore, Md.
Tilton—Arthur S. Brown Mfg. Co., Tilton, N. H.
Tuftex—Rochester Woven Belting Corp., E. Rochester, N. Y.
Urac—Union Rubber & Asbestos Co., Trenton, N. J.

Victor Balata & Textile Belting Co., New York, N. Y. (Trade names—Grip-On, Liberty, V-B.)
Victor, Waterproof—The Franklin Cotton Mill Co., Cincinnati, O.
Wooster—Duryea Mfg. Co., Bayonne, N. J.

BELTING, FOODSTUFF CONVEYING.

Burrell Belting Co., Chicago, Ill.
Canner—Diamond Rubber Co., Inc., The, Akron, O.
Cincinnati Rubber Mfg. Co., The, Cincinnati, O.
Gandy—The Gandy Belting Co., Baltimore, Md.
Gilmer—L. H. Gilmer Co., Philadelphia, Pa.
Mechanical Rubber Co., The, Cleveland, Ohio.
Republic Rubber Co., The, Youngstown, O. (Trade names—Cossette, White Cover Canning.)
Sanital—Imperial Belting Co., Chicago, Ill.
Sanitary—The Goodyear Tire & Rubber Co., Akron, Ohio.
United States Rubber Co., New York, N. Y.
V-B—Victor Balata & Textile Belting Co., New York, N. Y.

BELTING, FRICTION SURFACE.

Emsco—E. M. Smith Co., Los Angeles, Cal.
Goodyear Tire & Rubber Co., The, Akron, O. (Trade names—Goodyear, Glide, Klingtite, Pathfinder.)
Klingold—Thermoid Rubber Co., Trenton, N. J.
Mechanical Rubber Co., Cleveland, Ohio. (Trade names—Arrow, Buckeye, High Grade, Marco, Popular, 2XL.)
Pacemaker, Arno—Cincinnati Rubber Mfg. Co., Cincinnati, O.
Perfection—Boston Woven Hose & Rubber Co. Cambridge, Mass.
Republic Rubber Co., The, Youngstown, O. (Trade names—Agricultural, Chariot, Double Cross, Invader, Mercury.)
Sagamore—Gutta Percha & Rubber Mfg. Co., New York.
Thermoid Rubber Co., The, 248 Chestnut st., Philadelphia, Pa.
United States Rubber Co., New York, N. Y.
Union Rubber & Asbestos Co., Trenton, N. J.

BELTING, HAIR.

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Camel Hair—The Rossendale-Reddaway Belting & Hose Co., Newark, N. J.
Iwana—Fenwick-Reddaway Mfg. Co., Newark, N. J.
Mulcott Belting Co., Inc., New York, N. Y. (Trade names—Multiplar, Petrol, Super Mule, Twintex.)

BELTING, LEATHER.

Acme—Bonner & Barnewall, Inc., New York, N. Y.
Acme, Chrome, Defiance—Norwich Belt Mfg. Co., Inc., Norwich, Conn.
Acorn—Buckeye Belting & Sup. Co., Cleveland, O.
Akron Belting Co., The, Akron, O. (Trade names—Akron, Cascade, Ideal, Norka, Perfection, Planer, Rival.)
Alexander Bros., Inc., Philadelphia. (Trade names—Alexander, Tentacular, Flexotype.)
Alexander, E. P., & Son, Inc., Philadelphia, Pa. (Trade names—Circle A, Golden Oak, Simplex.)
Allen, W. D., Mfg. Co., Chicago, Ill (Trade names—Ajax, Alenco, Arm & Hammer, Arrow.)
Alligator Waterproof—Missouri Belting Co., St. Louis, Mo.
Anhydrous Amalgum—Chas. L. Ireson, Boston, Mass.
American Belting Companies, The, Baltimore, Md. (Trade names—Maryland, Standard, Windsor.)
American Leather Belting Co., Chicago, Ill.
American, Saxon, Niagara, Power — Johnson Belting Co., New York, N. Y
Apex—N. Palmer & Co., Bridgeport, Conn.
Atlantic Mfg. Co., Wilmington, Del.
Asco—American Supply Co., Providence, R. I.
Bak-Bone—Geo. Rahmann & Co., New York, N. Y.
Baltimore Belting Co., Baltimore, Md. (Trade names—Baltobelt, El Toro, Superior.)
Bancroft Belting Co., The, Boston, Mass.
Barbroco—Barnum Bros. Co., Troy, N. Y.
Barlow Bros., Philadelphia, Pa.
Barnes, Henry K., Boston, Mass.
Bay State—Bay State Belting Co., Boston, Mass.
Best Grade—Dickey Belting Co., Lewiston, Me.
Bickford & Francis Belting Co., Buffalo, N. Y. (Trade names—B. C. & D., B. C. & D. High Speed, B. & F., Bickford Special Tan, Champion, Samson.)
Blackstone, Congress—Bennett-McGuire Belting Co., St. Louis, Mo.
Blandin Co., Inc., Lawrence, Mass.
Bonbar Reinforced—Bonner & Barnewall, Inc., New York.
Bond, Charles, Co., Philadelphia, Pa. (Trade names—Bondaron, Bondex.)
Brooklyn Leather Belting Co., Brooklyn, N. Y
Buckeye—The Buckeye Belting & Sup. Co., Cleveland, Ohio.
Buckeye—I. B. Williams & Sons, Dover, N. H.
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California Tanning Co., St. Louis, Mo.
Capen Belting & Rubber Co., St. Louis, Mo. (Trade names—Agra, Duro, Malta, Ne-Pac, Short-Lap.)
Central Belting Co., New York, N. Y.
Century—Hartley-Rose Belting Co., Pittsburg, Pa.
Charlotte Leather Belting Co., Charlotte, N. C. (Trade names—Blue Ridge, Charlotte Oil Dressed, Clean Quality, Hosiery Mill Special, Obark, Packide, Special Spinning Belt, Star, Waterproof Loom Single.)
Charter Oak—N. Palmer & Co., Bridgeport, Conn.
Chelsea—Ulmer Leather Co., The, Norwich, Conn.
Chicago Belting Company, Chicago, Ill. (Trade names—Dynamo, Imperial, Reliance, Sea Lion Chrome, Sea Lion, Sterling.)
Chicago Rawhide Mfg. Co., Chicago, Ill. (Trade names—Krome, Oak, Rawhide.)
Clingstone—Bonner & Barnewall, Inc., New York N. Y.
Climax—N. Palmer & Co., Bridgeport, Conn.
Cocheco—I. B. Williams & Sons, Dover, N. H.
Columbia—Edward R. Ladew Co., Inc., New York.
Columbus—Columbus Belting & Supply Co., Columbus, O.
Comber—Geo. Rahman & Co., New York, N. Y.
Concord—Page Belting Co., Concord, N. H.
Connecticut Belting Co., The, Norwich, Conn. (Trade names—Yokohama [spindle], Colonial.)
Consumers Belt Factory, Inc., Fort Worth, Tex.
C B—Couse & Bolten, Newark, N. J.
Cross Bros. Co., Inc., Rochester, N. Y. (Trade names—Flexo, Genesee.)
Croton—Baldwin Belting & Leather Co., New York, N. Y.
Crown—Page Belting Co., Concord, N. H.
Danforth—J. H. Billington Co., Philadelphia, Pa.
Defiance—I. B. Williams & Sons, Dover, N. H.
Dependable—Himmelein & Bailey, Philadelphia, Pa.
Detroit Oak Belting Co., Detroit, Mich. (Trade names—Best Grade, Detroit, Flexile, King.)
Diamond—Buffalo Belting Wks., Buffalo, N. Y.
Diamond—The W. S. Nott Co., Minneapolis, Minn.
Dixie Planer—Bonner & Barnewall, Inc., New York, N. Y.
Druid Oak, Breakwater, Testus—Druid Oak Belting Co., Inc., The, Baltimore, Md.
Du-O-Tan—Whiting Leather & Belting Co., Long Island City, N. Y.
Duplex—Barnum Bros. Co., Troy, N. Y.
Durable—The Cleveland Oak Belting Co., Cleveland, Ohio.
Dynamic—Pechin Belting Co., Philadelphia.
Dynamo—Barnum Bros. Co., Troy, N. Y.
Dynamo—Burr Oak Belting Co., Cincinnati, O.
Dynamo—W. S. Nott Co., Minneapolis, Minn.
Dynamo—Union Belt Co., Fall River, Mass.
Eagle—Eagle Belting Co., Chicago, Ill.
Eagle Counter & Leather Co., The, Cincinnati, O. (Trade names—Acme, Dynamo, Like Oak.)
Ebony Rawhide—Missouri Belting Co., St. Louis, Mo.
Etsweiler, William, & Co., Philadelphia, Pa.
Eureka—California Belting & Supply Co., San Francisco, Cal.
Eureka—Page Belting Co., Concord, N. H.
Evansville Leather Belting Co., Evansville, Ind.
Excelmo, Moval, Mobelt, Planer Double—Missouri Belting Co., St. Louis, Mo.
Excelsior—Union Belt Co., Fall River, Mass.
Exciter—McCauley Belting Co., Chicago, Ill.
Extra Heavy—Union Belt Co., Fall River, Mass.
Extra Standard—Coe & Brown Co., New Haven, Conn.
Extra—W. S. Nott Co., Minneapolis, Minn.
Fair Oaks—Hartley-Rose Belting Co., Pittsburg, Pa.
Fairgrieve Belting Co., Lowell, Mass.
First Choice—Meier-Andres Belting Co., Newark, N. J.
Fisher Leather Belting Co., Inc., The, Philadelphia, Pa. "Kanthurt."
Flat Fan—W. S. Nott Co., Minneapolis, Minn.
Flexo—Columbia Belting Co., Portland, Ore.
Flintstone—Edward R. Ladew Co., New York.
Forest City, Rockford—Rockford Belting Co., Rockford, Ill.
Forster—John M. Forster Co., Rochester, N. Y.

Foss & Bump, Inc., Springfield, Mass. (Trade names —Anchor, Groom, Pioneer, Sterling.)
Foulds, I., & Son, Hudson, Mass.
Fried-Lang Leather Co., New York, N. Y.
Gibraltar—Burton Greene Leather Co., Chicago, Ill.
Girard—Wise & Bailey, Philadelphia, Pa.
Glen Cove—Edward R. Ladew Co., New York, N. Y.
Glenn-Ambler Co., Philadelphia, Pa. (cone belting.)
Golden State—H. N. Cook Belting Co., San Francisco, Cal.
Gopher—S. R. Sikes Co., Minneapolis, Minn.
Granite—Rahmann & Co., Geo., New York, N. Y.
Graton & Knight Co., The, Worcester, Mass. (Trade names—Gra-Knight Dynamo, Gra-Knight, Heart, Spartan, Cylinder, Du-Ply, Extra Short Lap, Pryzoak, Spar Oak, Spar Oak Planer, Special Planer.)
Greenville Belting Co., Greenville, S. C.
Head Miller—Webb Belting Co., Kansas City, Mo.
Heart of Oak—The Toledo Belting Co., Toledo, O.
Hercules—California Belting & Supply Co., San Francisco, Cal.
Hercules—Wise & Bailey, Philadelphia, Pa.
Hero, Water-Proof—The W. S. Nott Co., Minneapolis, Minn.
Hervey, F. L., & Co., Inc., Fall River, Mass.
Hi-Grade—Cornell Belting Co., Chicago, Ill.
Hide, Leather & Belting Co., Indianapolis, Ind. (Trade names—Adheso, Dynamo, Machine, Old Faithful, Volt.)
Holyoke Belting Co., Holyoke, Mass. (Trade names—Hampden, Holyoke, Paper City, Pequoit.)
Hudson Belting Co., Worcester, Mass. (Trade names —Oak Bark, Special Tannage.)
Hull-Whiting Belting Co., Inc., Cleveland, O. (Trade names — Breakwater, Dynamo, Strongheart, Thor.)
Illinois Mechanical Leather Co., Chicago, Ill.
Imperial—Taylor Belting Co., Indianapolis, Ind.
Invincible—Homer Strong Co., Rochester, N. Y.
Jerry-Bro., Lem-Mar—Jerry Bros. Belting Co., Richmond, Va.
Jewell Chrome, Diver, Dynamo, Extra, Hartford, Light, Waterproof—Jewell Belting Co., Hartford, Conn.
Johnson Belting Co., New York. (Trade names—America, Combine, Niagara, Power, Sutton.)
Kelly-Linehan Belting Co., San Francisco, Cal. (Trade names—Ideal, K. & L., Royal Oak.)
Keystone Belting Co., Philadelphia, Pa.
Kontak, Kromoke—Geo. Rahmann & Co., New York, N. Y.
Laminated-Edge-On—Bonner & Barnewall, Inc., New York, N. Y.
Lawton, W. M., Utica, N. Y.
Light Double—The Akron Belting Co., Akron, O.
Long Life, Indian Tanned—W. S. Nott Co., Minneapolis, Minn
Lucas—The Toledo Belting Co., Toledo, O.
M-L-B—Milwaukee Leather Belting, Milwaukee, Wis.
McIlroy Belting Works, Hammond, Ind. "Union Brand."
McLean Mfg. Corp., New York, N. Y. (Trade names —Centrifugal, Premier, Pyramid.)
McLeod Leather & Belting Co., Greensboro, N. C. (Trade names—MacOak, Greyhound, Mogul, Sampson.)
MacWatty Belting Co., Providence, R. I.
Maltese—Cross Bros. Co., Rochester, N. Y.
Manhattan Velocity—Geo. Rahmann & Co., New York N. Y.
McLanathan, F. W., & Son, Lawrence, Mass. (Trade names—McL., Chrome Tanned, Oak Tanned, Wondertan.)
Matador—Ulmer Leather Co., Norwich, Conn.
Merrigold—Page Belting Co., Concord, N. H.
Moloney Belting Co., Chicago, Ill. (Trade names—M, Short Lap, Capital, Dynamo, Special.)
Monarch—The Bradford Belting Co., Cincinnati, O.
Monarch Co., The, Cleveland, O. (Trade names—Atlas, Marvel, Monco, Pioneer, Tower.)
Mountain Oak, Pioneer—Mountain States Rubber Co., Denver, Colo.
Muel—Page Belting Co., Concord, N. H.
Mule—Ulmer Leather Co., Norwich, Conn.
Nappa—Henry F. Whiting, Lowell, Mass.
New York Leather Belting Co. (Trade names—Bulldog, Durable, Dynamo, Double, Imperial, Marathon, Peerless, Motor, Phoenix.)
Niagara—Buffalo Belting Wks., Buffalo, N. Y.
Nott's Extra—Nott Co., W. S., Minneapolis, Minn.
Oak—E. F. Houghton & Co., Philadelphia, Pa.
Oakwood—Byrnes Belting Co., St. Louis, Mo.
Old Oak—National Leather Belting Co., New York.
Old Reliable—Wise & Bailey, Philadelphia, Pa.
Olmsted-Flint Corp., Cambridge, Mass. "Arolap," "Pacemaker," "Steerstok," "Velap," "Velocity."
O'Meara Belting Co., Omaha, Neb. (Trade names—Choice, Choice Extra, Extra Choice.)
Pacific Belting Co., Seattle, Wash.
Paulus, Jos. C., & Co., Philadelphia, Pa.
Perfection—Bonner & Barnewall, Inc., New York N. Y.
Perfection—Homer Strong, Rochester, N. Y.
Philadelphia Belting Co., Philadelphia, Pa.
Planer—Andrew Cowan & Co., Inc., Louisville, Ky.
Plant Company, Minneapolis, Minn. (Trade names—Giant, Imperial, Mohawk.)
Plymouth—California Belting & Supply Co., San Francisco, Cal.
Pocono—Wise & Bailey, Philadelphia, Pa.
Porpoise—National Leather Belting Co., New York.
Pulmor—Pulmor Belt Mfg. Co., Fort Wayne, Ind.
Pure Oak—Dickey Belting Co., Lewiston, Me.
Ramapo—Baldwin Belting & Leather Co., New York, N. Y.
Raniville, F., Co., Grand Rapids, Mich. (Trade names —Duface, Flexite, Gam Tan, Oko, Special, Star, Wateride.)
Rasmussen Co., Inc., Julius, Milwaukee, Wis.
Reliable—Andrew Cowan & Co., Inc., Louisville, Ky.
Rex—Barnum Bros. Co., Troy, N. Y.
Rex—The W. S. Nott Co., Minneapolis, Minn.
Rhoads, J. E. & Sons, Philadelphia, Pa. (Trade names—Gilt Edge, Tannate, Power.)
Royal—Barnum Bros., Co., Troy, N. Y.
Royal Oak—Smyth-Despard Co., Utica, N. Y.
Royal Standard—J. Bachmann & Co., New York.
Sabre—McCauley Belting Co., Chicago, Ill.
Sagamore—Narragansett Belting Co., Providence.
Salisbury, W. H., & Co., Inc., Chicago, Ill. (Trade names—Apex, Dynamo, Double Edge, Inner-Tex, Salisbury Light Double, Shingle, Special Planer, Trojan.)
Saxon—Byrnes Belting Co., St. Louis, Mo.
Schieren, Chas. A., Co., New York, N. Y. (Trade names—Agricultural, Bull's Head, Dixie, Duxbak, Light Double, Oak Tan, Perforated Electric, Rock Oak, Eagle, Royal Extra.)
Semmelmeyer Belting Co., St. Louis, Mo. (Trade names—Royal Oak, Short Lap, Standard.)
Sheppard Leather Belting Co., Inc., The, Philadelphia, Pa.
Shield—McCauley Belting Co., Chicago, Ill.
Slate's, Geo., Sons, Williamsport, Pa. (Trade names —Electric, Extra, Medium.)
Slip-Not—Slip-Not Belting Corp., Kingsport, Tenn.
Southern Belting Co., Atlanta, Ga.
Southern King—W. S. Nott Co., Minneapolis, Minn.
Special Planer—Burr Oak Belting Co., Cincinnati, O.
Special Planer—The W. S. Nott Co., Minneapolis, Minn.
Special Planer—Whiting Leather & Belting Co., Long Island City, N. Y.
Special Spindle—Bonner & Barnewall, Inc., New York, N. Y.
Special Tanned—W. S. Nott Co., Minneapolis, Minn.
Special Woodworking—Bonner & Barnewall, Inc., New York, N. Y.
Spindle City—Henry F. Whiting, Lowell, Mass.
Springfield Belting & Supply Co., The, Springfield, Mass.
Square Deal—Burr Oak Belting Co., Cincinnati, O.
Star—L. P. Degen Belting Co., San Francisco, Cal.
Steer—McCauley Belting Co., Chicago, Ill.
Sterling Lehigh—Charles Bond Co., Philadelphia, Pa.
Sunset—L. P. Degen Belting Co., San Francisco, Cal.
Superior Leather Belting Co., New York (Trade names—Nonpareil, Paramount, Superoak.)
Superior Oak—Andrew Cowan & Co., Inc., Louisville, Ky.
Syracuse Supply Co., Syracuse, N. Y. (Trade names —Huron, Standard, Triton.)
Tan-Rex—Barnum Bros. Co., Troy, N. Y.
Tarpon—Page Belting Co., Concord, N. H.
Tenacity—Geo. Rahmann & Co., New York, N. Y.
Tiger—Andrew Cowan & Co., Inc., Louisville, Ky.
Troy Belting & Supply Co., Troy, N. Y.
True Brand—Smyth-Despard Co., Utica, N. Y.
True Oak—Smyth-Despard Co., Utica, N. Y.
Turner, J. S., Mfg. Co., Lowell, Mass.
Ulmer Leather Co., The, Norwich, Conn.
Union—Union Belt Co., Fall River, Mass.
Union Belting Co., St. Louis, Mo. (Trade names—Just-Rite, Service.)
United Belt Mfg. Co., St. Louis, Mo. (Trade names—Hercules, Royal Stag.)
Unitan—Norwich Belt Mfg. Co., Inc., Norwich, Conn
U. S., Oak Tanned—Reed & Duecker, Memphis, Tenn.
Uti—Smyth-Despard Co., Utica, N. Y.
Van Riper Mfg. Co., Paterson, N. J.
Vacuum Genuine Hoghide—Vacuum Belting Co., Indianapolis, Ind.
Velvet—W. T. Shackley & Son Co., Boston, Mass.
V. Shape—W. S. Nott Co., Minneapolis, Minn.
Very Best—Franklin Belting Co., Philadelphia, Pa.
Viking—Shultz Belting Co., St. Louis, Mo.
Vim—E. F. Houghton & Co., Philadelphia, Pa.
Virginia Leather Co., The, Richmond, Va. (Trade names—Beaver, Old Dominion, Richmond, Virginia.)
Viscoproof—Henry F. Whiting, Lowell, Mass.
Vulcanite—The Chicago Rawhide Mfg. Co., Chicago, Ill.
Walker's Sons & Co., Chas. W., Newark, N. J.

Warren Belting Co., Worcester, Mass. (Trade names—Warren, Wabeco, Waterproof.)
West Leather Belting Co., Inc., Chicago, Ill.
Western Belting & Packing Co., Denver, Colo.
Weymouth—Wise & Bailey, Philadelphia, Pa.
White Strip—The Chicago Belting Co., Chicago, Ill.
Whiting Leather & Belting Co., New York, N. Y. (Steerbax, Bedrock, Hardware.)
Wilby, Albert E., Lowell, Mass.
Wissahickon—J. H. Bellington Co., Philadelphia, Pa
Wood-working—Union Belt Co., Fall River, Mass
Zenith—Jewell Belting Co., Hartford, Conn.
Zim—Conrad Zimmer Belting Co., New York, N. Y

BELTING, LEATHER, CONE.

Bond, Charles, Co., Philadelphia, Pa.
Glenn-Ambler Co., Philadelphia, Pa.
Rhoads, J. E., & Sons, Philadelphia, Pa. (Trade names—Tannate Cone, Teecone.)

BELTING, LEATHER, LINK.

American Joint—Chas. A. Schieren Co., New York.
Foss & Bump, Inc., Springfield, Mass.
Page Belting Co., Concord, N. H.
Philadelphia Belting Co., Philadelphia, Pa.

BELTING, LEATHER, RAWHIDE.

Chicago Rawhide Co., The, Chicago, Ill.
Coupe, Wm., Co., South Attleboro, Mass.
Gibraltar—Burton Greene Leather Co., Chicago, Ill
Giant—Missouri Belting Co., St. Louis, Mo.
Hunt Co., Henry C., Boston, Mass.
Page Belting Co., Concord, N. H.
White Strip—Chicago Belting Co., Chicago, Ill.

BELTING, LEATHER, ROUND AND TWIST.

Acorn—Graton & Knight Mfg. Co., Worcester, Mass.
Alexander Bros., Inc., Philadelphia, Pa. "Albrotan," "Alexander," "Pennsylvania."
Alexander, E. P., & Son, Inc., Philadelphia, Pa.
American Leather Belting Co., Chicago, Ill.
Baltimore Belting Co., Baltimore, Md. (Trade names—Baltobelt, Tiger Tan.)
Black Diamond—Jewell Belting Co., Hartford, Conn.
Bondaron—Chas. Bond Co., Philadelphia, Pa.
Bull Dog—Illinois Mechanical Leather Co., Chicago, Ill.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Co., The, Chicago, Ill.
Crown—Page Belting Co., Concord, N. H.
Eagle Counter & Leather Co., The, Cincinnati, O.
Ebony—Missouri Belting Co., St. Louis, Mo.
Foss & Bump, Inc., Springfield, Mass.
Franklin Belting Co., York, Pa. "Very Best."
Gibraltar—Burton Greene Leather Co., Chicago, Ill
Gilt Edge—I. B. Williams & Sons, Dover, N. H.
Graton & Knight Co., Worcester, Mass. (Trade names—Acorn, Nugget.)
Heron—Western Rawhide & Belting Co., Chicago, Ill.
Hide Leather & Belting Co., Indianapolis, Ind.
Hindu—Druid Oak Belting Co., Inc., The, Baltimore, Md.
Holyoke—Holyoke Belting Co., Holyoke, Mass.
Hoyt's—Edward R. Ladew Co., Inc., New York, N. Y.
Hudson Belting Co., Worcester, Mass.
Johnson Belting Co., New York, N. Y. (Trade names—America, Gibraltar, Special, Standard.)
McL—F. W. McLanathan & Son, Lawrence, Mass.
MacWatty Belting Co., Providence, R. I.
Monarch—Bradford Belting Co., Cincinnati, O.
New York Leather Belting Co., New York, N. Y. (Trade names—Patent, Phoenix Oak, Solid.)
Oriole—I. B. Williams & Sons, Dover, N. H.
Page Belting Co., Concord, N. H.
Pequoit—Holyoke Belting Co., Holyoke, Mass.
Philadelphia Belting Co., Philadelphia, Pa.
Raniville, F., Co., Grand Rapids, Mich. (Trade names—Olotan, Oxhide, Star, Ve-Single.)
Red Seal—National Leather Belting Co., New York
Reinhold Belting & Strap Co., Brooklyn, N. Y.
Reliance—Chicago Belting Co., Chicago, Ill.
Rhoads, J. E., & Sons, Philadelphia, Pa. (Trade names—Diamond State, Tannate.)
Schieren, Chas. A., Co., New York, N. Y.
Sheppard Leather Belting Co., Inc., Philadelphia, Pa.
Submarine—Mountain States Rubber Co., Denver, Colo.
Superior—Western Rawhide & Belting Co., Chicago, Ill.
Turner, J. S., Mfg. Co., Lowell, Mass.
Warren Belting Co., Worcester, Mass. (Trade names—Warren, Wabeco.)

BELTING, LEATHER, STEAM PROOF.

Duxbak Nutan—Chas. A. Schieren & Co., New York, N. Y.
Hydro—Hudson Belting Co., Worcester, Mass.
Jewell Belting Co., Hartford, Conn.
Salisbury, W. H., & Co., Inc., Chicago, Ill. (Trade names—Apex, Lea-Duck, Seal, Trojan.)
Ulmer Belting Co., The, Norwich, Conn.
Whiting Leather & Belting Co., New York, N. Y.

BELTING, LEATHER, WATER PROOF.

Alexander Dreadnaut—Alexander Bros., Inc., Philadelphia, Pa.
Alexander, E. P., & Son, Inc., Philadelphia, Pa.
Alligator—Missouri Belting Co., St. Louis, Mo.
American Leather Belting Co., Chicago, Ill.
Ark—Philadelphia Belting Co., Philadelphia, Pa.
Auk—Buckeye Belting & Sup. Co., Cleveland, O.
Blue Stone—W. S. Nott Co., Minneapolis, Minn.
B. C. & D.—Bickford & Francis Belting Co., Buffalo, N. Y.
Bonner & Barnewall, Inc., New York, N. Y. (Trade names—Laminated-Edge-On, Oro, Rex Tan, Rino.)
Bradford—Bradford Belting Co., Cincinnati, Ohio.
C B—Couse & Bolten, Newark, N. J.
Chrome, Jewell, Waterproof—Jewell Belting Co., Hartford, Conn.
Cobeco—Cornell Belting Co., Chicago, Ill.
Comber, Kontak, Kromoke—Geo. Rahmann & Co., New York.
Degen's—L. P. Degan Belting Co., San Francisco, Cal
Detroit Leather Belting Co., Detroit, Mich. (Trade names—Naiad, Sinew, Wolverine Planer.)
Diver—Jewell Belting Co., Hartford, Conn.
Dolphin, Grip Pulley—H. C. Cook Belting Co., San Francisco, Cal.
Durable Waterproof—The Cleveland Oak Belting Co., Cleveland, O.
Duxbak—Chas. A. Schieren & Co., New York, N. Y.
Ebco Chrome—William Etsweiler & Co., Philadelphia, Pa.
Extractor—Andrew Cowan & Co., Inc., Louisville, Ky.
Fish—Ulmer Leather Co., Norwich, Conn.
Fisher Leather Belting Co., Inc., The, Philadelphia, Pa. "Fisher."
Gibraltar—Burton Greene Leather Co., Chicago, Ill.
Glenn-Ambler Co., Philadelphia, Pa.
Graton & Knight Co., The, Worcester, Mass. Trade names—Neptune, Neptune Dynamo, Spartan, Spar Oak, Spar Oak Planer, Special Planer, Neptune Planer.)
H. & B.—Himmelein & Bailey, Philadelphia, Pa.
H-2-O—Schwartz Belting Co., New York, N. Y.
Hippo—J. Bachmann & Co., New York, N. Y.
Hippo—Reed & Duecker, Memphis, Tenn.
Johnson Belting Co., New York, N. Y. "Niagara."
K-O (Chrome Oak)—Eagle Counter & Leather Co., Cincinnati, O.
Lem-Mar—Jerry Bros. Belting Co., Richmond, Va.
Mac Oak—McLeod Leather & Belting Co., Greensboro, N. C.
MacWatty Belting Co., Providence, R. I.
Marine—McCauley Belting Co., Chicago, Ill.
Matador—Ulmer Leather Co., The, Norwich, Conn.
Mermaid—Hudson Belting Co., Worcester, Mass.
Milwaukee Leather Belting Co., Milwaukee, Wis. (Trade names—Beaver Belt, Slip Not.)
Moccasin—The Connecticut Belting Co., Norwich, Conn.
Monco—Monarch Belting Co., Cleveland, O.
Navy Special—Baltimore Belting Co., Baltimore, Md.
Ne-Pac Extra—Capen Belting & Rubber Co., St. Louis, Mo.
Oakwood—H. N. Cook Belting Co., San Francisco, Cal.
Old Faithful—Hide, Leather & Belting Co., Indianapolis, Ind.
Olmsted-Flint Corp., Cambridge, Mass. "Arolap," "Oilskin."
Philadelphia Belting Co., Philadelphia, Pa.
Porpoise—Kelly-Linehan Belting Co., San Francisco, Cal.
Porpoise—National Leather Belting Co., New York, N. Y.
Progress—H. N. Cook Belting Co., San Francisco, Cal.
Pure Oak—S. R. Sikes & Co., Minneapolis, Minn.
Rhoads, J. E., & Sons, Philadelphia, Pa. Trade names—Watershed Grip-O-Tan, Watershed Oak, Watershed Tannate.
Royal Oak—Semmelmeyer Belting Co., St. Louis, Mo.
Salisbury, W. H., & Co., Inc., Chicago, Ill. (Trade names—Lea Duck, Seal, Special, Trojan.)
Sea King—United Belt Mfg. Co., St. Louis, Mo.
Sea Lion—Chicago Belting Co., Chicago, Ill.
Sealskin—Burr Oak Belting Co., Cincinnati, O.
Shedite—I. B. Williams & Sons, Dover, N. H.
Slip-Not—Slip-Not Belting Corp., Kingsport, Tenn
Special Black—William Etsweiler & Co., Philadelphia, Pa.
Storm—Franklin Belting Co., Philadelphia, Pa.
Storm King—Foss & Bump, Inc., Springfield, Mass.
Storm King—Meier-Andres Belting Co., Newark, N. J.
Submarine—O'Meara Belting Co., Omaha, Neb.
Submarine, Pequoit—Holyoke Belting Co., Holyoke, Mass.
Turtle—Edward R. Ladew Co., Inc., New York, N. Y.
Ute—Smyth-Despard Co., Utica, N. Y.
Vulcanite Krome—Chicago Rawhide Mfg. Co., Chicago, Ill.
Walrus—Narragansett Belting Co., Providence, R. I.

Warren Belting Co., Worcester, Mass.
Wateride—F. Raniville Co., Grand Rapids, Mich.
Water King—Bay State Belting Co., Boston, Mass.
Water King—Central Belting Co., New York, N. Y.
Water King—Chicago Belting Co., Chicago, Ill.
Water-Test—Conrad Zimmer Belting Co., New York, N. Y.
Watertite—Plant Company, Minneapolis, Minn.
Waterwitch—Smyth-Despard Co., Utica, N. Y.
Waterwitch—N. Palmer & Co., Bridgeport, Conn.
Wetprufe—Hide, Leather & Belting Co., Indianapolis, Ind.
Wetstone—W. S. Nott Co., Minneapolis, Minn.
Whale—Moloney Belting Co., Chicago, Ill.
Whalebak—Superior Leather Belting Co., New York, N. Y.
Whirlpool—Charles Bond Co., Philadelphia, Pa.
White Strip—Chicago Belting Co., Chicago, Ill.
Whiting Leather & Belting Co., Baltimore, Md. (Steerbax Waterproof.)
Wonder Tan—F. W. McLanathan & Son, Lawrence, Mass.
XXX—Himmelein & Bailey, Philadelphia, Pa.

BELTING, ROPE.

(See "Rope, Transmission.")

BELTING, RUBBER.

Acme—The Acme Rubber Mfg. Co., Trenton, N. J.
Acme Seamless—The Akron Belting Co., Akron, O.
Anchor Packing Co., The, Philadelphia, Pa.
Aqua—J. W. Buckley Rubber Co., New York, N. Y.
Atlantic—Atlantic Mfg. Co., Wilmington, Del.
Best Test—Union Rubber & Asbestos Co., Trenton, N. J.
Boston Woven Hose & Rubber Co., Cambridge, Mass. (Trade names—Bull Dog, Perfection.)
Buckley Rubber Co., J. W., New York, N. Y. (Trade names—B, Bucko, Dumol, Hydraulic, Magnet, Maron, Ramapo, Ox, Rebus, Steamship, Vena, Wabron.)
Buffalo Weaving & Belting Co., Buffalo, N. Y.
Byrnes Belting Co., St. Louis, Mo.
Canvas Stitched—The Manhattan Rubber Mfg. Co., Passaic, N. J.
Capen Belting & Rubber Co., St. Louis, Mo. (Trade names—Admiral, Colonial, Ne-Pap, Patriot, Top Notch.)
Cincinnati Rubber Mfg. Co., Cincinnati, O. (Trade names—Arno, Broncho, Hontas, Pacemaker, Pawnee.)
Commander—The B. F. Goodrich Rubber Co., Akron, O.
Condor—The Manhattan Rubber Mfg. Co., Passaic, N. J.
Conomic—Union Rubber & Asbestos Co., Trenton, N. J.
Consolidated—Consolidated Packing & Supply Co., New York, N. Y.
Copper Queen—Pioneer Rubber Mills, San Francisco, Cal.
Delhi—The Manhattan Rubber Mfg. Co., Passaic, N. J.
Diamond Rubber Co., Inc., Akron, O. (Trade names—Diamond, Clipper, Defiance, Dirubco, Dynamo, Gulf, Griptite, Hogbeater, Indian Red, Lynx, Moose, Sawmill Special, Sphinx, Titan.)
Drake—Union Rubber & Asbestos Co., Trenton, N. J.
Durex—Ohio Rubber & Textile Co., Cleveland, O.
Eldorado—Union Rubber & Asbestos Co., Trenton, N. J.
Electric—Wise & Bailey, Philadelphia, Pa.
Empire Tire & Rubber Corp., Trenton, N. J. (Trade names—Alabama, Empire, Empire Red, Hero, King, Model, Monitor, Rival, Yale.)
Emsco—E. M. Smith Co., Los Angeles, Cal.
Fabreeka—Fabreeka Belting Co., Boston, Mass.
Febeco—Federal Belting Co., Baltimore, Md.
Franklin—Wise & Bailey, Philadelphia, Pa.
Fulton—Hudson Mechanical Rubber Co., New York, N. Y.
Girard—Wise & Bailey, Philadelphia, Pa.
Globe Rubber & Tire Co., Inc., Trenton, N. J.
Golden Gate—Pioneer Rubber Mills, San Francisco, Cal.
Goodall Rubber Co., Inc., Philadelphia, Pa.
Goodyear Tire & Rubber Co., The, Akron, O. (Trade names—Glide, Goodyear, Klingtite, Pathfinder.)
Gutta Percha & Rubber Mfg. Co., New York. (Trade names, High Speed, Manitou, Seneca, Wallabout, Concentrator, Conveyor, Maltese Cross, Mohawk, Montana Brand, Red Strip Bend, Ridgewood, Sagamore.)
Hewitt—Hewitt Rubber Co., Buffalo, N. Y. (Trade names—Dogwood, Hollywood, Navajo, Magnus, Hewitt Heavy Duty, Triple H, Lightning High Speed.)
Home Rubber Co., Trenton, N. J. (Trade names—Black Seal, Jumgo, Old Glory, Tiger, White Cross, World.)
Hudson Mechanical Rubber Co., New York, N. Y. (Trade names—Clermont, Hi-Test, Hudson.)
Husky—Union Rubber & Asbestos Co., Trenton, N. J.
Ideal Seamless—The Akron Belting Co., Akron, O.
Imperial Belting Co., Chicago, Ill.

UNION RUBBER & ASBESTOS CO.
Trenton, N. J.
BELTING. Rubber, Balata & Canvas Stitched
HOSE. Rubber, Metallic, Cotton & Linen
PACKINGS. Asbestos, Rubber, Fibre & Flax
GASKETS and WASHERS Asbestos & Rubber

International—The Manhattan Rubber Mfg. Co., Passaic, N. J.
Invincible—Hamilton Rubber Mfg. Co., Trenton, N. J.
Johnson, Henry, Co., Inc., Jersey City, N. J.
Kingfisher—The Strong Machinery & Supply Co., New York, N. Y.
Kortlandt—The Manhattan Rubber Mfg. Co., Passaic, N. J.
Link-Belt Company, Chicago, Ill.
Lion Paw—Buckner Process Co., Worcester, Mass.
Long Life—Goodrich Rubber Co., B. F., Akron, O.
Mechanical Rubber Co., Cleveland, Ohio. (Trade names—All Around, Buckeye, Cleveland, High Grade, Popular, Transmitto, 2XL.)
Mercer Rubber Co., Hamilton Square, N. J.
Monitor—The B. F. Goodrich Rubber Co., Akron, O.
Mulconroy Co., Inc., Philadelphia, Pa. "Gem," "Hero," "Model," "Victor."
New York Belting & Packing Co., New York. (Trade names—Carbon, Double Diamond, Dragon, Dundee, Great Seal, Para, Test Special, Vulcan.)
New York Rubber Corporation, Beacon, N. Y.
Old Reliable—Wise & Bailey, Philadelphia, Pa.
Pennsylvania—The Pennsylvania Rubber Co., Jeannette, Pa.
Pilgrim, Signal, Marathon—The B. F. Goodrich Rubber Co., Akron, O.
Pinnacle—The B. F. Goodrich Rubber Co., Akron, O.
Quaker City—Quaker City Rubber Co., Philadelphia, Pa. (Trade names—Quaker City, Atlantic, Crown, Desert, Edgewater, Frictionclad, Hercules, Ironsides, Redskin, Rhinoceros.)
R. F. & C.—Buffalo Weaving & Belting Co., Buffalo, N. Y.
Ranger—Union Rubber & Asbestos Co., Trenton, N. J.
Reliance—Pioneer Rubber Mills, San Francisco, Cal.
Republic Rubber Co., The, Youngstown, O. (Trade names—Agricultural, Chariot, Double Cross, Invader, Mercury, Tower, Cossette, Dredge, Flange Vanner, Grader, Grain, Hog Beater, Producer, Sulphiter, White Cover Canning.)
Rob Roy—The B. F. Goodrich Rubber Co., Akron, O.
Salisbury, W. H., & Co., Inc., Chicago, Ill. (Trade names—Corduroy, El Rey, Hevea, Nemo, Oil Well, Salisco, Viking.)
Saxonoid—Thermoid Rubber Co., Trenton, N. J.
Security Rubber & Belting Co., Chicago, Ill.
Sunset—Pioneer Rubber Mills, San Francisco, Cal.
Thermoid Rubber Co., 248 Chestnut st., Philadelphia, Pa.
Titanic—The B. F. Goodrich Rubber Co., Akron, O.
Union Rubber & Asbestos Co., Trenton, N. J.
United States Rubber Co., New York, N. Y.
Voorhees Rubber Co., Jersey City, N. J. "American," "Bostwick," "Clairmont," "Corona," "Criterion," "Power," "Red Wing," "Sensation," "Sentinel," "Union," "Utility," "Vindicator."
Weymouth—Wise & Bailey, Philadelphia, Pa.
Whitehead Bros. Rubber Co., The, Trenton, N. J.
Woven Steel Hose & Rubber Co., Trenton, N. J.

BELTING, SANDING AND POLISHING.

Ames Sword Co., Chicopee, Mass.
Arno, Pacemaker—Cincinnati Rubber Co., Cincinnati, O.
Chicago Rawhide Mfg. Co., The, Chicago, Ill.
Curry, J. W. Co., Cincinnati, O.
Diamond Rubber Co., Inc., Akron, O.
Gilmer—L. H. Gilmer Co., Philadelphia, Pa.
Goodrich Co., The B. F., Akron, O.
Graton & Knight Co., Worcester, Mass.
Home Rubber Co., Trenton, N. J.
Hudson Belting Co., Worcester, Mass.
Manning Abrasive Co., Inc., Troy, N. Y.
Page Belting Co., Concord, N. H.
Production Machine Co., Greenfield, Mass.
Republic Rubber Co., The, Youngstown, O.

BELTING, STEEL, TRANSMISSION.

Endural—The Power Engineering Co., Youngstown, Ohio.

BELTING, USED AND RECONSTRUCTED.

Peerless Belting Co., Gardenville, N. Y. "Tripli."
Pulmor Belt Mfg. Co., Fort Wayne, Ind.
Ranivillized—F. Raniville Co., Grand Rapids, Mich.
Webb Belting Co., Kansas City, Mo.

BELTING, "V."

Chicago Rawhide Mfg. Co., The ,Chicago, Ill.
Diamond State, Tannate—J. E. Rhoads & Sons, Philadelphia, Pa.
Eagle—Eagle Belting Company, Chicago, Ill.
Gibraltar—Burton Greene Leather Co., Chicago, Ill.
Graton & Knight Co., Worcester, Mass. "Spartan."
Hudson Belting Co., Worcester, Mass.
Monarch Belting Co., Cleveland, O.
Ne-Pac—Capen Belting & Rubber Co., St. Louis, Mo.
Reeves Pulley Co., Columbus, Ind.
Reinhold Belting & Strap Co., Brooklyn, N. Y.
Sea Lion—Chicago Belting Co., Chicago, Ill.
Underwood—Wm. Sumner Belting Co., Tolland, Conn.
V-Belting—Detroit Oak Belting Co., Detroit, Mich.
Vee-Sol, Tough Tan, Vee-Flex—Hide, Leather & Belting Co., Indianapolis, Ind.

BELTS, AUTO FAN AND MOTOR CYCLE.

A. B. C.—American Brake Lining Co., Sellersville, Pa.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Endless Woven—J. W. Curry Co., Cincinnati, O.
Fango—Cross Bros. Co., Inc., Rochester, N. Y.
Gilmer, L. H., Co., Tacony, Philadelphia, Pa. (Cotton.)
Goodyear—The Goodyear Tire & Rubber Co., Akron, Ohio.
Graton & Knight Co., Worcester, Mass. "Spartan."
Leather Parts Co., Indianapolis, Ind.
Moloney Belting Co., Chicago, Ill .
Monarch Co., Cleveland, O. "Monco," "Auto Brand."
Old Faithful—Hide, Leather & Belting Co., Indianapolis, Ind.
Philadelphia Belting Co., Philadelphia, Pa.
Pulmor—Pulmor Belt Mfg. Co., Fort Wayne, Ind.
Reinhold Belting & Strap Co., Brooklyn, N. Y.
Rusco—Russell Mfg. Co., Middletown, Conn.
Sea Lion—Chicago Belting Co., Chicago, Ill.
United & Globe Rubber, Inc., Trenton, N. J.
Webb Belting Co., Kansas City, Mo.
White Strip—Chicago Belting Co., Chicago, Ill.

BELTS, CAR LIGHTING.

Karbelt—Victor Balata & Textile Belting Co., New York, N. Y.

BELTS, ENDLESS, THRESHER, ETC.

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Chicago Rawhide Mfg. Co., The, Chicago, Ill.
Chrome—Jewell Belting Co., Hartford, Conn.
Cyclone—Burrell Belting Co., Chicago, Ill.
Federal—Federal Belting Co., Baltimore, Md.
Gandy Belting Co., Baltimore, Md.
Gilmer, L. H., Co., Philadelphia, Pa.
Graton & Knight Co., Worcester, Mass. "Spartan Planer."
Griptite—Diamond Rubber Co., Inc., Akron, O.
Hemek—Manheim Manufacturing & Belting Co., Manheim, Pa.
Hettrick—Hettrick Mfg. Co., Toledo, O.
Imp, Red Bird—Union Rubber & Asbestos Co., Trenton, N. J.
Imperial—Chicago Belting Co., Chicago, Ill.
Klingtite—The Goodyear Tire & Rubber Co., Akron, Ohio.
Ladew, Edward R., Co., Inc., New York, N. Y.
Mechanical Rubber Co., The, New York, N. Y. (Trade names—Burro, Marco.)
Mount Vernon Belting Co., Baltimore, Md.
New York Belting & Packing Co., New York, N. Y.
Pacemaker—The Cincinnati Rubber Mfg. Co., Cincinnati, O.
Pioneer Rubber Mills, San Francisco, Cal.
Raniville, F., Co., Grand Rapids, Mich.
Republic Rubber Co., The, Youngstown, O.
Smith, Manning J., Belting Co., Philadelphia, Pa.
Tilton—Arthur S. Brown Mfg. Co., Tilton, N. H.
Union Rubber & Asbestos Co., Trenton, N. J.
United States Rubber Co., New York, N. Y.
Victor—Victor Balata & Textile Belting Co., New York.
Williams, I. B., & Sons, Dover, N. H.

BELTS AND CORD, GUT, TRANSMISSION.

American Gut String Mfg. Co., Chicago, Ill.

BELTS, MINERS' SAFETY.

Hudson Belting Co., Worcester, Mass.
M-S-A—Mine Safety Appliances Co., Pittsburgh, Pa.

BENCHES, DRAW.

Bliss Co., E. W., Brooklyn, N. Y.
Mesta Machine Co., Pittsburgh, Pa.
Ohl—Geo. A. Ohl & Co., Newark, N. J.
Perkins Machine Co., Warren, Mass.
San Francisco Engineering Co., San Francisco, Cal.
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.
Watson-Stillman Co., The, New York, N. Y.
Winterhoff Tool & Machine Co., Elkhart, Ind.

BENCHES, MANUAL TRAINING.

Richards-Wilcox Mfg. Co., Aurora, Ill.

BENCHES, MOLDERS'.

Champion—Western Tool & Mfg. Co., Springfield, O.
Tessmer—Tessmer Machine & Tool Co., Detroit, Mich.
V & O—The V & O Press Co., Brooklyn, N. Y.
Watson-Stillman Co., The, New York, N. Y.

BENCHES, PIPE CUTTING AND THREADING.

(See also, "Stands, Vise.")

American Brand—American Pipe Tool Co., Chicago, Ill.
Bailey's—Frederick T. Bailey & Co., North Scituate, Mass.
Champion—Western Tool & Mfg. Co., Springfield, O.
Martin—H. P. Martin & Sons, Owensboro, Ky.
New Britain—New Britain Machine Co., The, New Britain, Conn.
Smith—H. B. Smith Machine Co., Smithville, N. J.
Standard Iron Works, New York.
Toledo—Toledo Pipe Threading Machine Co., Toledo, O. (collapsible).
Vulcan—J. H. Williams & Co., Buffalo, N. Y.

BENCHES, SAW, PORTABLE.

(See "Machinery, Woodworking," and "Tables, Saw.")

BENCHES, WORK.

Champion—Western Tool & Mfg. Co., Springfield, O.
Christianson, C., Chicago, Ill.
Continental Auto Parts Co., Columbus, Ind.
Grand Rapids School Equipment Co., Grand Rapids, Mich.
Hallowell—Standard Pressed Steel Co., Jenkintown, Pa.
Hill Clutch, Machine & Foundry Co., The, Cleveland, Ohio.
Leiman Bros., New York, N. Y. (jewelers).
Lyon—Lyon Metallic Mfg. Co., Aurora, Ill.
Manley—Manley Mfg. Co., York, Pa. (portable).
Meeco—The Manufacturing Equipment & Engineering Co., Framingham, Mass.
Perfection—E. H. Sheldon & Co., Muskegon, Mich.
Prentice—L. H. Prentice Co., Chicago, Ill.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Tannewitz Works, The, Grand Rapids, Mich.
Vanderman's—The Vanderman Mfg. Co., Willimantic, Conn.

BENCHES, WORK, WITH CHAIN VISE.

Toledo Pipe Threading Machine Co., The, Toledo, O.

BENDERS, ANGLE, HOOK AND EYE.

Armstrong-Blum Mfg. Co., Chicago, Ill. "Marvel."
Chambersburg Engineering Co., Chambersburg, Pa.
Champion Blower & Forge Co., Lancaster, Pa.
Hill & Griffith Co., Cincinnati, O.
Hinman—D. A. Hinman & Co., Sandwich, Ill. (bar.)
Hydraulic Press Mfg. Co., The, Columbus, O. "H. P. M."
Kidder, J. F., Mfg. Co., Burlington, Vt.
Marvel—Armstrong-Blum Mfg. Co., Chicago, Ill.
Koehring Co., Milwaukee, Wis. (Bar.)
Niles-Bement-Pond Co., New York, N. Y.
Wallace—Wallace Supplies Mfg. Co., Chicago, Ill.
Williams, White & Co., Moline, Ill.

BENDERS, CONDUIT AND PIPE.

(See also "Springs, pipe bending.")

American Pipe Bending Co., Boston, Mass.
Baird—Baird Pneumatic Tool Co., Kansas City, Mo.
Bernz Co., Otto, Newark, N. J.
Crane Co., Chicago, Ill.
Johnson, Wm., Firm of, Newark, N. J. (lead).
Little Blacksmith—J. F. Kidder Mfg. Co., Burlington, Vt.
Lord—C. H. Yonts Co., The, Meadville, Pa.
Martin, H. P., & Sons, Owensboro, Ky.
Niles-Bement-Pond Co., New York, N. Y.
Pedrick Tool & Machine Co., Philadelphia, Pa.
Penn—Penn Engineering Co., Reading, Pa.
Red-Top—Q-S Sanitary Mfg. Co., Waterloo, Iowa.
Simmons Co., John, New York, N. Y.
Skinner, M. B., Co., Chicago, Ill. "Boss Hickey," "Skinner."
Standard Engineering Co., Ellwood City, Pa.
Toledo Pipe Threading Machine Co., The, Toledo, O.
Underwood Corp., H. B., Philadelphia, Pa. (portable).
Vanderman Mfg. Co., The, Willimantic, Conn.
Wallace—Wallace Supplies Mfg. Co., Chicago, Ill.
Wrigley's—The Thos. Wrigley Co., Chicago, Ill.

BENDERS, RAIL.

Aldon, Jim Crow—The Aldon Co., Chicago, Ill.
Bethlehem Fdy. & Mach. Co., So. Bethlehem, Pa.
Buda Co., The, Harvey, Ill.
Chambersburg Engineering Co., Chambersburg, Pa.

Earle Gear & Machine Co., Philadelphia, Pa.
Elmes, Charles F., Engineering Works, Chicago, Ill.
Emerson, Jim Crow, Samson, Roller, Kalamazoo—Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Hardsocg, Martin, Co., The, Pittsburgh, Pa.
Hydraulic Press Mfg. Co., The, Mount Gilead, O.
Niles-Bement-Pond Co., New York, N. Y.
Pittsburgh Gage & Supply Co., Pittsburg, Pa.
Richardson & Tallman, Shelbyville, Ill.
Smith—The Watson-Stillman Co., New York, N. Y.
Verona Tool Works, Pittsburgh, Pa.
Zelnicker—Walter A. Zelnicker Supply Co., St. Louis, Mo.

BENDERS, TIRE.

Bethlehem Foundry & Mach. Co., So. Bethlehem, Pa.
Buffalo Forge Co., Buffalo, N. Y.
Chambersburg Engineering Co., Chambersburg, Pa.
Champion Blower & Forge Co., Lancaster, Pa. (Trade names—Century, Columbian, Eureka.)
Green River—Greenfield Tap & Die Corp., Greenfield, Mass.
Kane & Roach, Syracuse, N. Y.
Southern Skein & Foundry Co., Chattanooga, Tenn.
W. B.—San Francisco Engineering Co., San Francisco

BENDS AND COILS, PIPE, BRASS, COPPER, IRON AND STEEL.

Albright, Son & Co., Allentown, Pa.
Atlas Copper & Brass Mfg. Co., Chicago, Ill.
Baltimore Tube Co., Baltimore, Md.
Bridgeport Brass Co., Bridgeport, Conn.
Cesuco—Central Supply Co., Minneapolis, Minn.
Chicago Nipple Mfg. Co., Chicago, Ill.
Cornell & Underhill, New York, N. Y.
Cox, J. Fillmore, & Co., Bayonne, N. J.
Crane Co., Chicago, Ill.
Garrison-Heiland Corp., New York.
Gerdes & Co., New York, N. Y.
Glenn Mfg. Co., St. Charles, Ill.
Harris, Arthur, & Co., Chicago, Ill. (copper, brass and aluminum.)
Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa
Harvey's, A., Sons, Mfg. Co., Detroit, Mich.
K—Kuhns Bros., Dayton, O.
Kaltenthaler, H. J., Philadelphia, Pa.
Keating, E. F., Pipe Bending & Supply Co., Hartford, Conn.
Kellogg Co., The M. W., New York, N. Y.
Kleinman, Russell F., Philadelphia, Pa.
Limbert & Co., Geo. B., Chicago, Ill.
Materne, John P., Mfg. Co., St. Louis, Mo.
Mitchell, W. K., & Co., Inc., Philadelphia, Pa.
National Pipe Bending Co., New Haven, Conn.
Newbury, Jay H., & Son, Goshen, N. Y.
Philadelphia Pipe Bending Co., The, Philadelphia, Pa
Pittsburgh Piping & Equipment Co., Pittsburgh, Pa.
Rempe Co., Chicago, Ill.
Richardson, Edro, Brass Co., Baltimore, Md.
Roessing Manufacturing Co., Pittsburgh, Pa.
Sales, Murray W., Co., Detroit, Mich.
Shaw-Kendall Engineering Co., Toledo, Ohio.
Sholes, Incorporated, New York, N. Y. (monel).
Simmons Pipe Bending Works, Newark, N. J.
Standard Water Systems Co. of N. J., Hampton, N. J.
Superheater Co., The, New York, N. Y.
Vilter Mfg. Co., The, Milwaukee, Wis.
Walworth Company, Boston, Mass.
Whitlock Coil Pipe Co., The, Hartford, Conn.

BENDS, RETURN, BRASS AND BRONZE.

(See also "Fittings, Brass.")

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Edna Brass Mfg Co., The, Cincinnati, O.
Essex Foundry, Newark, N. J.
Exeter Brass Works, Exeter, N. H.
Lunkenheimer Co., Cincinnati, O.
Pittsburgh Valve & Fittings Co., Barberton, Ohio
Powell, Wm., Co., The, Cincinnati, O.
Richardson Brass Co., Edro, Baltimore, Md.
Simmons Co., John, New York, N. Y.
Walworth Company, Boston, Mass.

BENDS, WATER CLOSET, IRON.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Alabama Pipe Co., Anniston, Ala.
American Foundry & Mfg. Co., St. Louis, Mo.
American Pin Co., Waterbury, Conn.
B. & F. Mfg. Co., Inc., Indianapolis, Ind.
Bignall Co., Medina, N. Y
Blackwood—Blackwood Plumbing Supply Co., Pontiac, Mich.
Blake Specialty Co., Inc., Rock Island, Ill.
Boosey—Greenwood Mfg. Co., Detroit, Mich.
Cardinal—Clarksville Fdy. & Machine Wks., Clarksville, Tenn.
Casey-Hedges Co., Chattanooga, Tenn.
Chicago Pipe Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill. (adjustable).
East Penn Foundry Co., Macungie, Pa.
Eafco—Eastern Foundry Co., Boyertown, Pa.
Guilderland Foundry Co., Guilderland, N. Y.
Gulf States Pipe Corp., Anniston, Ala.
Hammond Iron Co., Birmingham, Ala.
Ideal—Sanitary Company of America, Linfield, Pa.
Lukomski Bros. Co., Detroit, Mich.
Oakes—Smith, Matthews Foundry Co., Detroit, Mich.
Republic—Stringer Bros. Co., Chicago, Ill.
Rice, Edward J., Mfg. Co., Rochester, N. Y.
Riverside Foundry & Galvanizing Co., Kalamazoo, Mich.
Salem Brass & Iron Mfg. Co., Bridgeton, N. J.
Stringer—Stringer Bros. Co., Chicago, Ill.
Swett, A. L., Iron Works, Medina, N. Y.
Testite—Groeniger Mfg. Co., Columbus, O.
Wade Iron Sanitary Mfg. Co., Chicago, Ill.
Washington Metal Products Co., Washington C. H., Ohio.
Wolverine Foundry Co., Detroit, Mich.

BENDS, WATER CLOSET, LEAD.

American Lead Co., Pittsburgh, Pa.
American Smelters Securities Co., San Francisco, Cal.
Baker Lead Mfg. Co., Worcester, Mass.
Chadwick-Boston Lead Co., Boston, Mass.
Eagle-Picher Lead Co., The, Cincinnati, O.
Lissberger, Marks, & Son, Inc., Long Island City, N. Y.
Raymond Lead Works, Chicago, Ill.
Robertson, James, Lead Works, Baltimore, Md.
Rochester Lead Works, Rochester, N. Y.
Ulco—United Lead Co., New York, N. Y.
Wensley Metal Products Co., Denver, Colo.
Windsor Mfg. Co., Milwaukee, Wis.

BEVELS.

Bemis & Call Hdw. & Tool Co., Springfield, Mass.
Braunsdorf-Mueller Co., Elizabeth, N. J.
Brown & Sharpe Mfg. Co., Providence, R. I.
Disston & Sons, Henry, Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Southington Hardware Co., Southington, Conn.
Stanley Rule & Level Co., New Britain, Conn.
Starrett Co., The L. S., Athol, Mass.

BIDETS.

(See also "Earthenware, Sanitary.")

Crane Co., Chicago, Ill.
Dalton-Ingersoll Mfg. Co., Boston, Mass.
Four Leaf Clover—John Maddock & Sons, Trenton, N. J.
Keystone Pottery Co., Trenton, N. J.
Maddock's, Thos., Sons Co., Trenton, N. J. (Trade names—Madelta, Madet, Madval.)
Mott, J. L., Iron Works, Trenton, N. J. (Trade names—Dunston, Dunward, Duval, Duval Jr.)
Sesco—Sanitary Earthenware Specialty Co., Trenton, N. J.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Two-Fired—Trenton Potteries Co., Trenton, N. J.

BINDERS, LOAD.

(See also, "Chain, Log or Binder.")

Atkins, E. C., & Co., Indianapolis, Ind.
Stacey, Eugene C., Tiffin, O.
Standard—Advance Car Mover Co., Inc., Appleton, Wis.

BINDERS, LOOSE LEAF CATALOG.

Heinn Company, The, Milwaukee, Wis.
Kalamazoo Loose Leaf Binder Co., Kalamazoo, Mich.
Proudfit Loose Leaf Binder Co., Grand Rapids, Mich

BINS, ASH.

Brown Hoisting Machinery Co., Cleveland, O.
Conveyors Corporation of America, Chicago, Ill.
Jeffrey Mfg. Co., Columbus, O.
Link-Belt Company, Chicago and Philadelphia.
New York Central Iron Works Co., Inc., Hagerstown, Md.
Weller Mfg. Co., Chicago, Ill.

BINS, CEMENT.

Columbiana Boiler Co., The, Columbiana, O.
Ransome—Ransome Concrete Machinery Co., Dunellen, N. J.

BINS, NAIL, SECTIONAL BALL BEARING

The Wellston Mfg. Co., Wellston, Ohio.

BINS, STONE, SAND AND GRAVEL.

Atlas Engineering Co., Milwaukee, Wis.
Link-Belt Company, Chicago, Ill.
New York Central Iron Works Co., Hagerstown, Md.
Reliance—Universal Road Machinery Co., Kingston, N. Y.
Weller Mfg. Co., Chicago, Ill.
Wisconsin Foundry & Machine Co., Madison, Wis.

BINS, STORAGE, STEEL.

Berloy—Berger Mfg. Co., Canton, O.
Blaw-Knox—Blaw-Knox Co., Pittsburgh, Pa.
Brown Hoisting Machinery Co., Cleveland, O.
Columbiana Boiler Co., The, Columbiana, Ohio.
Columbian Steel Tank Co., Kansas City, Mo.
Durand Steel Locker Co., Chicago, Ill.
Fouts, C. C., Co., Middletown, O.
Freeman-Riff Co., Terre Haute, Ind.
General Fireproofing Co., The, Youngstown, O.
Heller, C. & Co., Montpelier, Ohio.
Jeffrey Mfg. Co., Columbus, O.
Link-Belt Company, Chicago and Philadelphia.
Lupton—David Lupton's Sons Co., Philadelphia, Pa
Lyon—Lyon Metallic Mfg. Co., Aurora, Ill.
Manufacturing Equipment & Engineering Co., Framingham, Mass.
Mills Co., The, Cleveland, O.
Petroleum Iron Works Co., Sharon, Pa.
Seaverns, James B., Co., Chicago, Ill. (Portable.)
Shawmut Iron & Wire Works, Everett, Mass.
Terrell's Equipment Co., Grand Rapids, Mich.
Weller Mfg. Co., Chicago, Ill.
Western Tool & Mfg. Co., Springfield, O.
Willcox Engineering Co., Saginaw, Mich.

BITS, AUGER

Billings & Spencer Co., The, Hartford, Conn.
Cleveland Twist Drill Co., Cleveland, O.
Cleveland Wire Spring Co., Cleveland, O.
Dasco—Damascus Steel Products Co., Rockford, Ill.
Forest City Bit & Tool Co., Rockford, Ill.
Forstner—Progressive Mfg. Co., Torrington, Conn.
Goodell-Pratt Co., Greenfield, Mass.
Greenlee Reliance—Greenlee Bros. & Co., Rockford, Ill.
Hargrave—The Cincinnati Tool Co., Cincinnati, O.
Irwin Auger Bit Co., The, Wilmington, O.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Jennings, C. E., & Co., New York, N. Y.
Lincoln Twist Drill Co., Taunton, Mass.
Mephisto—W. A. Ives Mfg. Co., The, Wallingford, Conn.
Millers Falls Co., Millers Falls, Mass.
Moore Bros., Jamestown, N. Y.
Morse Twist Drill Co., Taunton, Mass.
New Process Twist Drill Co., Taunton, Mass.
Peck, Stow & Wilcox Co., Southington, Conn.
Red Devil—Smith & Hemenway, Irvington, N. J.
Russell Jennings—Russell Jennings Mfg. Co., Chester, Conn.
Sargent & Co., New York, N. Y.
Simmons Hardware Co., St. Louis, Mo.
Snell Mfg. Co., Fiskdale, Mass.
Syracuse Twist Drill Co., Syracuse, N. Y.
Union Twist Drill Co., Athol, Mass.
Whitman Barnes-Detroit Corp., Detroit, Mich.
Wrights Jennings—Connecticut Valley Mfg. Co., The Centerbrook, Conn.

BITS, BONDING.

Celfor—Clark Equipment Co., Buchanan, Mich.
G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.
New Process Twist Drill Co., Taunton, Mass.
Whitman Barnes-Detroit Corp., Detroit, Mich.

BITS, BORING MACHINE.

Morse Twist Drill & Machine Co., New Bedford, Mass. (For boring on edge of wood.)

BITS, CAR.

Pugh, J. T., Inc., Philadelphia, Pa.

BITS, COUNTERSINK.

Dasco—Damascus Steel Products Co., Rockford, Ill.
Mephisto—The W. A. Ives Mfg. Co., Wallingford, Conn.
V. & B.—Vaughan & Bushnell Mfg. Co., Chicago, Ill.

BITS, DOWEL.

Hargrave—The Cincinnati Tool Co., Cincinnati, O.
Mephisto—The W. A. Ives Mfg. Co., Wallingford, Conn.

BITS, EXPANSIVE.

Bernz, Otto, Co., Newark, N. J.
Clark, Wrights—Connecticut Valley Mfg. Co., The Centerbrook, Conn.
Clark—Union Hardware Co., Torrington, Conn.
Forstner—Progressive Mfg. Co., Torrington, Conn.
Jennings & Co., C. E., New York, N. Y
Lavigne Patent—The Kilborn & Bishop Co., New Haven, Conn.
Mephisto—Ives, W. A. Mfg. Co., Wallingford, Conn.
Peck, Stow & Wilcox Co., Southington, Conn.
Red Devil—Smith & Hemenway Co., Irvington, N. J.
Russell Jennings—The Russell Jennings Mfg. Co., Chester, Conn.
Simmons Hardware Co., St. Louis, Mo.
Snell-Clark—Snell Mfg. Co., Fiskdale, Mass.
Southington Mfg. Co., Southington, Conn.
Stanley Rule & Level Co., New Britain, Conn.
Swan Co., James, Seymour, Conn.

BITS, GIMLET.

Boker—H. Boker & Co., New York, N. Y.
Elmore—The Chapin-Stephens Co., Pine Meadow, Conn.
Goodell-Pratt Co., Greenfield, Mass.

BITS, MACHINE.

Cleveland Twist Drill Co., Detroit, Mich.
Forest City Bit & Tool Co., Rockford, Ill.
Forstner—Progressive Mfg. Co., Torrington, Conn
G. T. D.—Greenfield Tap & Die Corp., Greenfield Mass. (For wood.)
Greenlee—Greenlee Bros. & Co., Rockford, Ill.
Hargrave—The Cincinnati Tool Co., Cincinnati, O
Irwin Auger Bit Co., Wilmington, O.
Jennings, Russell, Mfg. Co., The, Chester, Conn.
Mephisto-Kyle—The W. A. Ives Mfg. Co., Wallingford, Conn.
Morse Twist Drill & Machine Co., New Bedford, Mass.
North Star—Saint Paul Machinery Mfg. Co., St. Paul, Minn.
Prentice—Whitman & Barnes Mfg. Co., Akron, O.
Shimer—Samuel J., Shimer & Sons, Milton, Pa.
Snell Mfg. Co., Fiskdale, Mass.
Standard Tool Co., Cleveland, O.
Star Bit & Tool Co., Rockford, Ill.
Union Twist Drill Co., Athol, Mass.

BITS, MINING MACHINE.

Black & Decker Mfg. Co., The, Towson, Md. (electric).
Hardsocg, Martin Co., Pittsburgh, Pa. (electric).
Leetonia Tool Co., Leetonia, O. (Electric.)
Link-Belt Company, Chicago and Philadelphia.

BITS, MORTISING, COMMON & HOLLOW.

Forest City Bit & Tool Co., Rockford, Ill.
Grand Rapids Hdw. Co., Grand Rapids, Mich.
Greenlee Bros., Co., Rockford, Ill.
Irwin Auger Bit Co., Wilmington, O.

BITS, REAMER.

V. & B.—Vaughan & Bushnell Mfg. Co., Chicago, Ill.

BITS, ROUTER.

Forest City Bit & Tool Co., Rockford, Ill.
Hoe, R., & Co., Inc., New York.
Morse Twist Drill & Machine Co., New Bedford, Mass.

BITS & SHANKS, SAW.

Ajax Mfg. Co., Pittsburgh, Pa.
Atkins, E. C., & Co., Indianapolis, Ind.
Hoe, R., & Co., Inc., New York, N. Y.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Southern Saw Works, Atlanta, Ga.

BITS, SAW GUMMER.

Ajax Mfg. Co., Pittsburg, Pa.

BITS, SCREW AND PLUG.

Hargrave—The Cincinnati Tool Co., Cincinnati, O.

BITS, SCREWDRIVER.

Buck Bros., Millbury, Mass.
Buffum Tool Co., Louisiana, Mo.
Crescent—The Crescent Co., Inc., Meriden, Conn.
Elmore—The Chapin-Stephens Co., Pine Meadow, Conn.
Dasco—Damascus Steel Products Co., Rockford, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Double—The H. D. Smith & Co., Plantsville, Conn.
Goodell-Pratt Co., Greenfield, Mass.
Handy—Millers Falls Co., Millers Falls, Mass.
Hargrave—The Cincinnati Tool Co., Cincinnati, O.
Jennings, C. E. & Co., New York, N. Y.
Johnson, Wm., Firm of, Newark, N. J.
Mephisto—W. A. Ives Mfg. Co., Wallingford, Conn.
Millers Falls Co., Millers Falls, Mass.
Milwaukee Tool & Forge Co., Milwaukee, Wis.
National Tool Co., New York, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Pioneer—The Southington Mfg. Co., Southington Conn.
Red Devil—Smith & Hemenway Co., Irvington, N. J.
Snell Mfg. Co, Fiskdale, Mass.
Standard Tool Co., Cleveland, O.
Stanley Rule & Level Co., New Britain, Conn.
Syracuse—Syracuse Twist Drill Co., Syracuse, N. Y
Threadwell Tool Co., Greenfield, Mass.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.

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(See also "Steel, Tool Holders.")

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Celfor—Clark Equipment Co., Buchanan, Mich.
Down Tool Works, Inc., Fleetwood, Pa.
Illinois Tool Works, Chicago, Ill.
Lovejoy Tool Co., Inc., Springfield, Vt.
Misener & Irving Mfg. Co., Syracuse, N. Y. "Indian."
Vincent Steel Process Co., The, Detroit, Mich.
Williams, J. H., & Co., Buffalo, N. Y.

BLADES, CUT OFF.

Scott-Spencer Automatic Tool Co., The, Cincinnati, O.
Ohio Knife Co., The, Cincinnati, O.

BLADES, SHEAR.

American Saw & Tool Works, Chicago, Ill.
Atkins, E. C., & Co., Indianapolis, Ind.
Cleveland Knife & Forge Co., Cleveland, O.
Dayton—The A. A. Simonds-Dayton Co., Dayton, O.
Detroit Edge Tool Works, Detroit, Mich.
Lovejoy, D. & Son, Lowell, Mass.
Machinery Company of America, Big Rapids, Mich.
O. K. Co.—The Ohio Knife Co., Cincinnati, O.
Paragon Tool Co., Seattle, Wash.
Stroh Steel-Hardening Process Co., Pittsburgh, Pa.
Wapakoneta Machine Co., The, Wapakoneta, O.
White, L. & I. J. Co., The, Buffalo, N. Y.

BLANKETS, ASBESTOS, RESCUE.

Wheeler—F. H. Wheeler Mfg. Co., Chicago, Ill.

BLANKS FOR FAUCET HOLES.

Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.

BLANKS, NUT AND SCREW.

Billings & Spencer Co., The, Hartford, Conn

BLASTS, FURNACE.

Cadillac—Clements Mfg. Co., Chicago, Ill.

BLOCKS, CHAIN.
(See also "Hoists, Chain.")

Box, Alfred & Co., Inc., Philadelphia, Pa.
Chisholm-Moore Mfg. Co., Cleveland, O.
Ford Chain Block & Mfg. Co., Philadelphia, Pa.
Franklin, Moore Co., Winsted, Conn.
King—A. R. King Mfg. Co., Kingston, N. Y.
Morris, Herbert, Inc., Buffalo, N. Y.
Obermayer, S., Co., The, Cincinnati, O.
Reading—Reading Chain & Block Corp., Reading, Pa.
Weston—D. Round & Son, Cleveland, O.
Wright—Wright Mfg. Co., Lisbon, O. (High Speed, screw and differential).
Yale—The Yale & Towne Mfg. Co., Stamford, Conn. (Screw geared and spur-geared.)

BLOCKS, DOLLY.

Fairmount Tool & Forging Co., The, Cleveland, O.

BLOCKS, DRILL.

La Francis—A. La Francis, Newark, N. J.
Starrett, L. S., Co., Athol, Mass.

BLOCKS, FRICTION, ASBESTOS.

Johns-Manville Corporation, New York. "J. M."
Thermoid—Thermoid Rubber Co., Trenton, N. J.

BLOCKS, MITRE.

Christiansen, C., Chicago, Ill.

BLOCKS, PACKING AND STEP.

Cad—Standard Shop Equipment Co., Philadelphia, Pa.

BLOCKS, PILLOW.

Barry—Barry Co., Muscatine, Ia.
Barry—R. & J. Dick Co., Inc., Passaic, N. J.
Bass Foundry & Machine Co., Fort Wayne, Ind.
Bond Patent—Bond Foundry & Machine Co., Manheim, Pa.
Brown, A. & F., Co., The, Elizabeth, N. J.
Caldwell, H. W., & Son Company, Chicago, Ill.
Chicago—Chicago Pulley & Shafting Co., Chicago, Ill.
Constant XX Century Corp., Bloomington, Ill.
Creston-Morris Co., Philadelphia, Pa.
Dodge Mfg. Corp., Mishawaka, Ind.
Fair Haven Foundry & Machine Co., Fair Haven, Vt.
Falls—Falls Clutch & Machinery Co., Kent, Ohio.
Fafnir Red Dragon—The Fafnir Bearing Co., New Britain, Conn.
Golden's Foundry & Machine Co., Columbus, Ga.
Hanson Clutch & Machinery Co., Tiffin, O.
Howard Iron Works, Buffalo, N. Y.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Hunter—James Hunter Machine Co., North Adams, Mass.
Huntsville Foundry & Machine Co., Huntsville, Ala.
Hyatt—Hyatt Roller Bearing Co., Newark, N. J.
Jeffrey Mfg. Co., The, Columbus, O.
Jones—W. A. Jones Foundry & Machine Co., Chicago, Ill.
Keystone—Keystone Pulley Co., Oneida, N. Y.
Link-Belt Company, Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
Mesta Machine Co., Pittsburgh, Pa.
Montgomery Coal Washing & Mfg. Co., Birmingham, Ala.
National—National Foundry & Mfg. Co., Williamsport, Pa.
Naylor Bros., Peekskill, N. Y
Nordyke & Marmon, Inc., Indianapolis, Ind.
Pioneer—Standard Pressed Steel Co., Jenkintown, Pa.
Prescott Co., The, Menominee, Mich.
Rex—Chain Belt Co., Milwaukee, Wis.
Royersford Foundry & Machine Co., Royersford, Pa. "Sells."
Schultz, A. L., & Son, Chicago, Ill.
S. K. F. Industries, Inc., New York, N. Y.
Smith, Winfield H., Springville, N. Y. (Small.)
Stephens-Adamson Mfg. Co., Aurora, Ill.
Transmission Ball Bearing Co., Inc., Buffalo, N. Y.
Valley Iron Works, Williamsport, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wolf Co., The, Chambersburg, Pa.
Wood, T. B., Sons Company, Chambersburg, Pa. (Plain, wick, ring, chain oiling and ball bearing.) "Wood-Fafnir."

BLOCKS, SIZE.

Loway—A. F. Way Co., Inc., Hartford, Conn.

BLOCKS, SNATCH.

Edwards, H. D., & Co., Detroit, Mich.
Stowell Company, The, South Milwaukee, Wis.

BLOCKS, TACKLE OR PULLEY.

American—American Hoist & Derrick Co., St. Paul, Minn.
American Wire & Cable Co., Inc., The, New York, N. Y.
Anvil—Western Block Co., Lockport, N. Y.
Boston—Boston Self Locking Block Co., Philadelphia, Pa.

Broderick & Bascom Rope Co., St. Louis, Mo.
Byers, John F., Machine Co., Ravenna, O.
Chisholm-Moore Mfg. Co., Cleveland, O.
Clean-Cut—Reading Wood Pulley Co., **Reading, Pa.**
Cleveland Block Co., Cleveland, O. (metal only.)
Dobbie Fdy. & Machine Co., Niagara Falls, N. Y.
Eddy—H. D. Edwards & Co., Detroit, Mich. (steel.)
Ferguson—Pittsburgh Block & Mfg. Co., **Pittsburgh,** Pa.
Fischer & Hayes Rope & Steel Co., Chicago, Ill.
Hall Safety Lock—Hall Mfg. Co., **Cedar Rapids, Ia.**
Hartz—H. D. Edwards & Co., Detroit, Mich. (steel).
Hartz—The H. V. Hartz Co., Cleveland, O. **(steel).**

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Strongest Block on the Market

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Lane Bros. Co., Poughkeepsie, N. Y.
Laughlin, Thos., Co., The, Portland, Me.
Marine Hardware-Equipment Co., S. Portland, Me.
McMillan's Sons, W. H., New York, N. Y.
Merriman Bros., Boston, Mass.
Star—Boston & Lockport Block Co., Boston, Mass.
Star—Hunt-Helm-Ferris & Co., Harvard, Ill.
Stowell Company, The, Milwaukee, Wis.
Strong, H. M., Steel Products Co. (self-locking), Cleveland, Ohio. "Burr."
Sure Grip—Fulton Iron Works, Detroit, Mich.
Union—Union Hardware Co., Torrington, Conn.
Wilcox, Crittenden & Co., Inc., Middletown, Conn.
Western Block Co., Lockport, N. Y.
Williamsport Wire Rope Co., Williamsport, Pa. "Madesco."

BLOCKS, SWAGE.

American Foundry & Mfg. Co., St. Louis, Mo.
Fisher—Fisher & Norris, Trenton, N. J.
Greenfield Tap & Die Corp., Greenfield, Mass.
Green River, Little Giant—Greenfield Tap & Die Corp., Greenfield, Mass.
Indiana Foundry Co., Indiana, Pa.
Southern Skein & Foundry Co., Chattanooga, Tenn.

BLOCKS AND CLAMPS, "V."

Armstrong-Blum Mfg. Co., Chicago, Ill.
Brown & Sharpe Mfg Co., Providence, R. I.
Brownie—Brownie Mfg. Co., Fort Wayne, Ind.
Simplex Tool Co., Woonsocket, R. I.
Up-to-Date Tool Co., Waltham, Mass.

BLOCKS, WIRE ROPE.

Broderick & Bascom Rope Co., St. Louis, Mo.

BLOW PIPES.

American Gas Furnace Co., Elizabeth, N. J.
Bernz, Otto, Newark, N. J.
Braunsdorf-Mueller Co., Elizabeth, N. J.
Eastman Brothers, Silverton, Ore.
Johnson, Wm., Firm of, Newark, N. J.
Newark Brass Wks., Newark, N. J.
Sayre, L. A. & Son, Newark, N. J.
Sun Vapor Street Light Co., The, Canton, O.
Turner Brass Works, The, Sycamore, Ill.

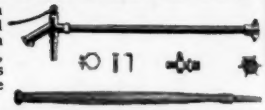
BLOWERS, BOILER FLUE & TUBE CLEANING.
(See also "Cleaners, Boiler Flue.")

A. & D.—Cleveland Flue Cleaner Mfg. Co., Cleveland.
Bayer—The Bayer Co., St. Louis, Mo.
Claflin—C. A. Claflin Co., Boston, Mass.
Cleveland—Cleveland Flue Cleaner Mfg. Co., Cleveland.
Coe—Nute, McGehee, Geary Co., Chambersburg, Pa.
Correct—Michigan Lubricator Co., Detroit, Mich.
Diamond Valv-in-Head—Diamond Power Specialty Corp., Detroit, Mich.
Do-Ro—Doermann-Roehrer Co., Cincinnati, O.
Favorite—Sherwood Mfg. Co., Buffalo, N. Y.
Ferret—Max Machine Co., Clinton, Mass.
Griffith, James A., Philadelphia, Pa.
Huyette, Paul B., Co., Philadelphia, Pa.
Lamy, A. & Son, Elizabeth, N. J.
Magic—W. D. Allen Mfg. Co., Chicago, Ill.
Marion—Marion Machine Fdy. & Supply Co., Marion, Ind.
Mather—Edmond Mather, Harrisburg, Pa.
National Flue Cleaner Co., Groveville, N. J.
Pilleys—Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.

Cut fuel expense—increase boiler capacity with a

Favorite Steam Flue Blower

Easily operated in horizontal or vertical tubes. Complete with handle, hose coupling, band and clamps. Brass working parts. Write for catalog.



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A GOOD NAME TO REMEMBER WHEN BUYING POWER PLANT and INDUSTRIAL SPECIALTIES

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Success—Chas. Nuhring & Bro., Cincinnati, O.
Tornado—The Paul N. Huyette Co., Philadelphia, Pa.
20th Century—Richard Thompson & Co., New York.
Two-Way—John S. Bushnell & Co., New York.

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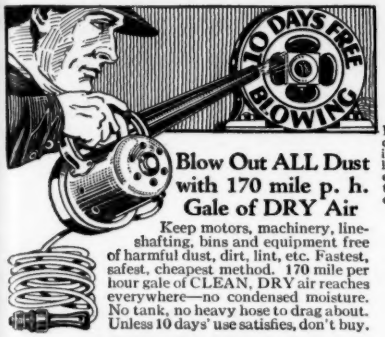
Allen & Billmyre Company, Inc., New York, N. Y.
Buffalo—Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Coppus—Coppus Engineering Corp., Worcester, Mass.
De Laval—De Laval Steam Turbine Co., Trenton, N. J.
Exeter Machine Works, Exeter, N. H.
Goyne—The Goyne Steam Pump Co., Ashland, Pa.
Ingersoll-Rand Co., New York, N. Y.
Koerting—Schutte & Koerting Co., Philadelphia, Pa.
McClave—McClave-Brooks Co., Scranton, Pa.
Moore Steam Turbine Corp., Wellsville, N. Y.
Power, Simplex—Power Turbo Blower Co., New York, N. Y.
Prat-Daniel Corp'n, New York, N. Y.
Robinson Ventilating Co., Pittsburgh, Pa. "Robinson."
Star—The Star Drilling Machine Co., Akron, O.
Sturtevant, B. F., Co., Boston, Mass.
Wing's—L. J. Wing Mfg. Co., New York, N. Y.

BLOWERS, FORGE.

A. B. C.—American Blower Co., Detroit, Mich.
Advance Furnace & Engineering Co., Springfield, Mass.
American Blower Co., Detroit, Mich.
Buffalo Forge Co., Buffalo, N. Y.
Champion—Champion Blower & Forge Co., Lancaster, Pa. (Power.)
Clarage Fan Co., Kalamazoo, Mich.
Cleveland Steam Gauge Co., Cleveland, O.
Canedy-Otto Mfg. Co., Chicago Heights, Ill. (Trade names—C-O., Royal, Tiger.)
Connersville Blower Co., Connersville, Ind.
Cumming, David, Portable Forge Works, Chicago, Ill. "Cumming."
Electric Blower Co., Boston, Mass.. "Marvel."
Eureka, 400, Lancaster, Midway—Champion Blower & Forge Co., Lancaster, Pa. (Hand.)
Garden City Fan Co., Chicago, Ill.
General Electric Co., The, Schenectady, N. Y.
Ilg—Ilg Electric Ventilating Co., Chicago, Ill.
Kimble—Kimble Electric Co., Chicago, Ill.
North American Mfg. Co., The, Cleveland, O. (Gas-electric.)
Peerless—New York Blower Co., Chicago, Ill.
Roots, P. H. & F. M. Co., Connersville, Ind.
Seco—Scranton Electric Construction Co., Scranton, Pa.
Star Mfg. Co., New Lexington, Ohio.
Sturtevant—B. F. Sturtevant Co., Hyde Park, Mass.
XXth Century—Champion-De Arment Tool Co., Meadville, Pa.
Wayne Tank & Pump Co., Ft. Wayne, Ind.

BLOWERS, FURNACE AND CUPOLA.

American Blower Co., Detroit, Mich. (Trade name—A. B. C., Sirocco.)
Beach-Russ Co., New York, N. Y.
Buffalo Forge Co., Buffalo, N. Y.
Cadillac—Clements Mfg. Co., Chicago, Ill.
Champion—Champion Blower & Forge Co., Lancaster, Pa.
Clarage Fan Co., Kalamazoo, Mich.
Connersville Blower Co., Connersville, Ind.
Koerting—Schutte & Koerting Co., Philadelphia, Pa.
Monarch Engineering & Mfg. Co., The, Baltimore, Md.



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Keep motors, machinery, line-shafting, bins and equipment free of harmful dust, dirt, lint, etc. Fastest, safest, cheapest method. 170 mile per hour gale of CLEAN, DRY air reaches everywhere—no condensed moisture. No tank, no heavy hose to drag about. Unless 10 days' use satisfies, don't buy.

Blow all dust and dirt from line shafting, in less time at less cost. Save power—eliminate friction caused by accumulation of dust.

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Blow all dust, dirt, lint, etc., from machinery, motors, generators, etc. Save repairs, shutdowns. Add years to life of plant equipment.

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Greater power proved! "Tornado" floats rubber ball *twice* as high as other blowers.

Weighs 7 lbs. Connects to any socket. Super powerful—delivers more air with more force. ⅓ h. p. G-E motor. Ball bearings—no oiling. Lessen fire risks, save repairs, shutdowns. Suction or spraying attachments if desired. Guaranteed to do the work where others fail. Costs no more—soon pays for itself. Product of 20 years' electrical manufacturing experience Write for Free Trial Offer.

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REMOVE DUST!

Suction cleaning attachments quickly suck dust and dirt out of bins machines, motors, auto upholstery, etc.

Also made in a Super Heavy Duty Model.

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Rockwell—W. S. Rockwell Co., New York.
Roots, P. H. & F. M. Co., Connersville, Ind.
Spencer Turbine Co., Hartford, Conn.
Sturtevant Co., B. F., Hyde Park, Mass.
Union—Scranton Pump Co., Scranton, Pa.
Wayne Tank & Pump Co., Ft. Wayne, Ind.

BLOWERS, GAS AND OIL COMBUSTION.

Marvel—Electric Blower Co., Boston, Mass.
Leiman Bros., New York, N. Y.

BLOWERS, HEATING BOILER DRAFT.

Coal Economy Turbine—Coal Economy Corporation, Chicago, Ill.

BLOWERS, HEATING, VENTILATING.
(See also "Fans")

Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Clarage Fan Co., Kalamazoo, Mich.
Green Fuel Economizer Co., Beacon, N. Y.
Howard & Morse, Inc., Brooklyn, N. Y.
Ilg Electric Ventilating Co., Chicago, Ill.
Improved—Improved Appliance Co., Brooklyn, N. Y.
Mahoney—A. D. Mahoney Co., Troy, N. Y.
Sturtevant—B. F. Sturtevant Co., Boston, Mass.
Venturafin—American Blower Co., Detroit, Mich.

BLOWERS, PORTABLE ELECTRIC.

Breuer Electric Mfg. Co., Chicago, Ill.
C-O—Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Cyclone—Green Equipment Corp., Chicago, Ill.
Cadillac—Clements Mfg. Co., Chicago, Ill.
Imperial Blow-Er-Clean—The Martindale Electric Co., Cleveland, O.
Marvel—Electric Blower Co., Boston, Mass.
Temco—The Temco Electric Motor Co., Leipsic, O.
United States Electrical Tool Co., The, Cincinnati, O.

BLOWERS, POSITIVE.

Beach-Russ Co., New York, N. Y.
Connersville, Victor—Connersville Blower Co., Connersville, Ind.
Crowell Mfg. Co., Brooklyn, N. Y.
Garden City—Garden City Fan Co., Chicago, Ill.
Hope Fan & Blower Co., Kansas City, Mo.
Leiman Bros., New York, N. Y. (Rotary.)
National Gas Furnace Co., Providence, R. I.
Old Reliable—Wilbraham Green Blower Co., Pottstown, Pa. (Rotary.)
Power, Simplex—Power Turbo Blower Co., New York, N. Y.
Robinson Ventilating Co., Zelienople, Pa.
Roots, P. H. & F. M., Co., Connersville, Ind.

BLOWERS, PRESSURE.

A. B. C.—American Blower Co., Detroit, Mich.
Abbe Engineering Co., New York, N. Y.
American Gas Furnace Co., Elizabeth, N. J.
American Warming & Ventilating Co., Elmira, N. Y.
Baker Rotary—Baker-Hansen Mfg. Co., Oakland, Calif.
Beach-Russ Co., New York, N. Y.
Buffalo Forge Co., Buffalo, N. Y.
Carling—Carling Turbine Blower Co., Worcester, Mass. (Small sizes.)
Champion Blower & Forge Co., Lancaster, Pa.
Clarage, Kalamazoo—Clarage Fan Co., Kalamazoo, Mich.
Connersville Blower Co., Connersville, Ind.
Crowell Mfg. Co., Brooklyn, N. Y.
Cyclone & Scientific—Star Mfg. Co., New Lexington Ohio.
DeLaval Steam Turbine Co., Trenton, N. J.
Electric Blower Company, Boston 9, Mass.
Green Fuel Economizer Co., The, Beacon, N. Y.
Hald, Blow Pipe Works, Inc., Brooklyn, N. Y.
Hollingsworth, Wm., Baltimore, Md.
Hoysradt & Case, Kingston, N. Y.
Ilg Electric Ventilating Co., Chicago, Ill. (direct connected).
Hypress—L. J. Wing Mfg. Co., New York, N. Y.
Improved Appliance Co., The, Brooklyn, N. Y.
Johnson Fan & Blower Co., Chicago, Ill.
Kerr Turbine Co., Wellsville, N. Y.
Lebran—Kruger & Blind Co., Philadelphia, Pa.
Leiman Bros., New York, N. Y. (Rotary.)
McKee—Eclipse Fuel Engineering Co., Rockford, Ill.

Ball Bearing Portable Blower

On 10 days' free trial.

6½-lb. Air Cooled Ball Bearing Motor $45.00 Net

This "MARVEL" Portable Blower is designed for blowing dust and dirt out of WOOD-WORKING MACHINERY, MOTORS, GENERATORS, SWITCH BOARDS, LOOMS, KNITTING and other TEXTILE MACHINERY. Has 20 feet high grade cable and armored plug. Perfectly balanced. Has TOGGLE SWITCH in handle, operated by thumb. Gives 16-in. water column pressure.

Note the Metal Conduit carrying wires from motor to handle.

Motor operates at 10,000-R.P.M. on "NORMA" BALL BEARINGS. This blower is a great time and labor saver, and its mechanical and electrical design gives assurance of a very long life, with a minimum of attention.

Made with UNIVERSAL motors (A.C. & D.C.) for both 110 volts and 220 volts. SHIPPING WEIGHT 18 lbs. Shipped on 10 days' trial, ANYWHERE.

Sell them to your customers. Write for Dealers' Discount, mentioning this advertisement.

A complete set of VACUUM CLEANER ATTACHMENTS for $10.00 additional

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Marvel—Electric Blower Co., Boston, Mass.
Mathis Brothers Co., The, Chicago, Ill.
Monarch—Monarch Engineering & Mfg. Co., The Baltimore, Md.
Moore Steam Turbine Corp., Wellsville, N. Y.
National Gas Furnace Co., Providence, R. I.
New England Ventilating & Heating Co., Providence, R. I.
New York Blower Co., The, Chicago, Ill.
Nute, McGehee, Geary Co., Inc., Chambersburg, Pa.
Old Reliable (Rotary)—Wilbraham-Green Blower Co., Pottstown, Pa. (for smelter foundry).
Power, Simplex—Power Turbo Blower Co., New York, N. Y.
Rockwell Co., W. S., New York, N. Y.
Roots, P. H. & F. M., Co., Connersville, Ind.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Sterling Blower Co., Hartford, Conn.
Stewart—Chicago Flexible Shaft Co., Chicago, Ill.
Sturtevant—B. F. Sturtevant Co., Hyde Park, Mass.
Syracuse Industrial Gas Co., Syracuse, N. Y.
Terry Steam Turbine Co., Hartford, Conn.
U. S. Gas Machine Co., Muskegon, Mich.
Vano—Coppus Engineering Corporation, Worcester, Mass.
Westinghouse Electric & Mfg. Co., Philadelphia, Pa.
Worthington Pump & Mach'y Corp., New York, N. Y.

BLOWERS, SAW DUST, SHAVINGS, ETC.
(See Collectors, Shavings, Dust, Etc.)

BLOWERS, VOLUME.

Bayley Mfg. Co., Milwaukee, Wis.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Clarage Fan Co., Kalamazoo, Mich.
Garden City Fan Co., Chicago, Ill.
Gen'l. Compressed Air & Vacuum Machinery Co., St. Louis, Mo.
Improved Appliance Co., Brooklyn, N. Y.
Indiana—Indiana Fan Co., Indianapolis, Ind.
Johnson Fan & Blower Co., Chicago, Ill.
Sterling—Sterling Blower Co., Hartford, Conn.
Sturtevant—B. F. Sturtevant Co., Hyde Park, Mass.
Uniblade—Autovent Fan & Blower Co., Chicago, Ill.
Wayne Tank & Pump Co., Ft. Wayne, Ind.

BOARDS, BINDERS'.

Davey Co., The, Jersey City, N. Y.
Hewitt & Bros., C. B., Inc., New York, N. Y.
Oak Grove—Ingalls & Company, Castleton, N. Y.
Stratford—Stratford Oakum Co., Geo., Jersey City, N. J.

BOARDS, FIBRE.

Davey Co., The, Jersey City, N. J.
Fibrofelt, Water-proof Lith—Union Fibre Co., Inc., Winona, Minn.
Hewitt, C. B., & Bros., Inc., New York, N. Y.

BOARDS, FRICTION.

Agate, F. S. F., Steelite—C. B. Hewitt & Bros., Inc., New York, N. Y.
Davey, E. H., Co., Bloomfield, N. J.
Davey Co., The, Jersey City, N. J.
Oak Grove—Ingalls & Company, Castleton, N. Y.
Rofico—Rogers Fibre Co., Boston, Mass. (soft fibre).
Stratford Oakum Co., Geo., Jersey City, N. J.
West Virginia Pulp & Paper Co., New York.

BOARDS AND FRAMES, GAGE.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Lonergan—J. E. Lonergan Co., Philadelphia, Pa.
Marsh, Jas. P., & Co., Chicago, Ill.
Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
United States Gauge Co., New York, N. Y.

BOARDS, GASKET.

Davey Co., The, Jersey City, N. J.
Hewitt, C. B., & Bros., Inc., New York, N. Y.

BOARDS, OILED, STENCIL.

Climax Parchment, Sterling—C. B. Hewitt & Bros., Co., Inc., New York, N. Y.

BOARDS, PRESS AND FULLER.

Hewitt, C. B., & Bros., Inc., New York, N. Y.

BOARDS, TRUNK.

Davey Co., The, Jersey City, N. J.
Hewitt, C. B., & Bros., Inc., New York, N. Y.
Ingalls & Company, Castleton, N. Y.
Stratford—Stratford Oakum Co., Geo., Jersey City, N. J.

BOILER METAL TREATMENT.
(See also, "Compounds, Boiler.")

American Renoleo Co., York, Pa.
Atkinson's Economy—Economy Lubricating Co., Boston, Mass.
Brooks Oil Company, Cleveland, O.
Formet—Perolin Co. of America, Chicago, Ill.
True Blue—Economy Lubricating Co., Boston, Mass.
Spizzerinktum—The Hays Corporation, Michigan City, Ind.

BOILER SCALERS (PNEUMATIC).

Dallett—Dallett Co., Philadelphia, Pa.

BOILER TUBES.

Cressman, N. G., Co., Philadelphia, Pa.
Keating, E. F., Co., New York, N. Y.
National Tube Co., Pittsburgh, Pa.

BOILERS, BARBERS', HOT WATER.

Badger, E. B., & Sons Co., Boston, Mass.
Dudley—Gilbert J. Moriarty, Boston, Mass.
Wm. Bros Boiler & Mfg. Co., Minneapolis, Minn.
Electric Weld—John Wood Mfg. Co., Conshohocken, Pa.
Gerstein & Cooper Co., South Boston, Mass. "Gerstein & Cooper."
Koven, L. O., & Bro., Jersey City, N. J.
Pennsylvania Range Boiler Co., Philadelphia, Pa.
Riverside Boiler Works, Inc., Cambridge, Mass.
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.

BOILERS, BLEACHING, PAPER MILL.

Biggs—Biggs Boiler Works Co., The, East Akron, O.

BOILERS, COPPER, LARGE SIZE.

Badger & Sons Co., E. B., Boston, Mass.
Dahlquist Mfg. Co., The, South Boston, Mass.
Gerstein & Cooper Co., South Boston, Mass. "Gerstein & Cooper."
Harris, Arthur, & Co., Chicago, Ill.
Moriarty, Gilbert J., Boston, Mass.

BOILERS, ELECTRIC.

Chicago Automatic Electric Boiler Co., Chicago, Ill.

BOILERS, HEATING, CAST IRON.

Abco—The Abco Boiler Corp., Brooklyn, N. Y.
Abendroth Bros., Port Chester, N. Y. (Trade names—Crown-Gem, York, York-Gem.)
Acme—Wm. Bartley & Sons, Bartley, N. J.
Adelphia—Borden Stove Co., Philadelphia, Pa.
American Radiator Co., New York, N. Y. (Trade names—Arco, Arcola, Ideal, Ideal-Arco.)
Ames Iron Works, Oswego, N. Y.
Andrews Heating Co., Minneapolis, Minn.
Bacon Heater & Mfg. Co., Cleveland, O.
Bartley, R. C., Co., The, Bartley, N. J. (Trade names—Favorite, Our Favorite.)
Bates, Edward P., Co., Inc., Syracuse, N. Y.
Berryman—The Patterson-Kelley Co., New York, N. Y.
Best—Ferguson & Lange Foundry Co., Chicago, Ill.
Birchfield Boiler Co., Tacoma, Wash.
Birdsall, W. A., & Co., Newark, N. J. (Trade names—Gibraltar, Waco.)
Boynton Furnace Co., New York, N. Y.
Bros, Wm., Boiler & Mfg. Co., Minneapolis, Minn.
Brownell Co., The, Dayton, Ohio.
Bryant Heater & Mfg. Co., Cleveland, O.
Burley Heater Co., Tyrone, Pa. (Trade names—Burley, Victor.)
Burnham Boiler Corporation, Irvington, N. Y.
Catchpole—Geneva Foundry Corp., Geneva, N. Y.
Central Radiator Co., New York, N. Y. (Trade names—Lansdale, Radex, Radio.)
C. H.—Casey-Hedges Co., Chattanooga, Tenn.
Clark Engine & Boiler Co., Kalamazoo, Mich.
Coatesville Boiler Works, Coatesville, Pa.
Cox, Abram, Company, Philadelphia, Pa. "Novelty."
Delta—Concord Mfg. Co., Dayton, O.
Economic—Godfrey-Keeler Co., New York, N. Y.
Evenheat Co., Chicago, Ill.
Excel—Johnson-Washburn Co., Boston, Mass.
Exeter Machine Works, Exeter, N. H.
Faultless—The Graff Furnace Co., New York, N. Y.
Floral City—Floral City Heater Co., Monroe, Mich.
Freed Heater Co., Philadelphia, Pa.
Frost Mfg. Co., Galesburg, Ill.
Galva Heater Co., The, Galva, Ill.
Gem—Abendroth Bros., Port Chester, N. Y.
Geneva Boiler Works, Inc., Geneva, N. Y.
Gibraltar Square—W. A. Birdsall & Co., Newark, N. J.
Gilt Edge—R. J. Schwab & Sons Co., Milwaukee, Wis.
Gorton Self Feeding—Gorton & Lidgerwood Co., New York, N. Y.
Gunther's—Peters Pump Co., Kewanee, Ill.

Handon—Handon Boiler Corp., New York, N. Y.
Harrisburg Star—Harrisburg Star Boiler Corp., New York, N. Y.
Hawkeye—Phelps Boiler Works, Oskaloosa, Iowa.
Herbert Boiler Co., The, Chicago, Ill.
Hudson Boiler Mfg. Co., Hoboken, N. J.
Hunter—Salem Brass & Iron Mfg. Co., Bridgeton, N. J.
Hydro Heater Co., Pittsburgh, Pa. (Trade names—Duplex Convertible Heater, Simplex Gas Heater.)
Illinois Malleable Iron Co., Chicago. (Trade names—Imico, Imico Diamond.)
International Heater Co., Utica, N. Y. (Trade names—Carton, Empress, International, Palace, Price, Prince, Queen, Sultan, Water Grate.)
Iowa—Chandler Heater Co., Cedar Rapids, Ia.
Keeler, E., Co., Williamsport, Pa.
Kewanee Firebox—Kewanee Boiler Co., Kewanee, Ill.
Keystone Spiral Tube—Keystone Boiler & Foundry Co., Landisville, Pa.
Lattner, P. M., Mfg. Co., Cedar Rapids, Ia.
Magee Furnace Co., Boston, Mass.
Monarch Sunshine—The Reading Stove Works, Reading, Pa.
Monitor—Monitor Bl. Loop Radiator Co., Lancaster, Pa.
Mueller, L. J., Furnace Co., Milwaukee, Wis.
Munroe, R., & Sons Mfg. Corp., Pittsburgh, Pa.
Nagle Engine & Boiler Works, Erie, Pa.
National Radiator Corporation, Johnstown, Pa.
Newport Boiler Co., Chicago, Ill. "Newport."
New Queen—Whitacre Boiler Co., Wellsville, O.
Niles Steel Tank Co., Niles, Mich.
Oil City Boiler Works, Oil City, Pa.
Pacific Steel Boiler Corp'n, Waukegan, Ill.
Page, Wm. H., Boiler Co., The, New York, N. Y. (Trade names—All Right, Monarch, Page, Volunteer.)
Peerless Heater Co., Pittsburgh, Pa.
Percoplate—Alexander, Morrison & Co., Inc., Newark, N. J.
Pierce, Butler & Pierce Mfg. Corp., New York. (Trade names—American, Pebco, Spence.)
Prox, Frank Co., Terre Haute, Ind. (Trade names—Duplex Economic, Economic, High Duty Economic, Radium.)
The Putnam Foundry & Machine Co., Putnam, Conn.
Radiant—Ideal Furnace Co., Detroit, Mich.
Raritan Radiator Co., Raritan, N. J.
Reading Heater & Supply Co., Reading, Pa. (Trade names—Henderson, Orbis, Radiant, Thermo.)
Reading Scale & Machine Co., The, Reading, Pa. (Trade names—Imperial Sunshine, Majestic Sunshine, Vestal Sunshine.)
Richardson Square Pot—Richardson & Boynton Co., New York, N. Y.
Richmond Radiator Co., New York, N. Y. (Trade names—Model, Richmond, Riraco.)
Royal—Hart & Crouse Co., Utica, N. Y.
Roys—Ideal Heating Co., Brooklyn, N. Y.
Safe—A. E. Olmstead & Sons, Pulaski, N. Y.
Sanborn Furnace Co., Methuen, Mass.
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.
Simmons, H. C., Sons, North Bennington, Vt.
Sims Co., Erie, Pa.
Smith, H. B., Co., Westfield, Mass. (Trade names—Cottage, Gold, H-B, Menlo, Mercer, Mills, Smith Service.)
Spiral Boiler & Radiator Co., St. Paul, Minn.
Standard Heater Co., Williamsport, Pa. "Craig."
Storm King—Roberts-Hamilton Co., Minneapolis, Minn.
Superior Standard—Superior Machine & Boiler Works, Chicago, Ill.
Super-Smokeless—Utica Heater Co., Utica, N. Y.
Syraco—Syracuse Radiator Co., Inc., Syracuse, N. Y.
Syracuse Steam Generator, Inc., Syracuse, N. Y.
Thatcher Company, The, Newark, N. J. (Trade names—Leader, 400 Series, Geyser, Progress, Sterling, Thatcher.)
Tico—The Titusville Iron Works Co., Titusville, Pa.
Torrid—Alonzo Hoover & Son, Hackettstown, N. J.
XXth Century—XXth Century Heating & Ventilating Co., The, Akron, O.
Unique—New Milford Foundry & Machine Co., New Milford, Conn.
United States Radiator Corp., Detroit, Mich. (Trade names—Capitol, Capitol Winchester.)
Walker & Pratt Mfg. Co., Boston, Mass. (Trade names—Crawford, Crawford Cadet, Walker.)
Wayne Cross Draft—Wayne Heater Corp., Richmond, Ind.
Weil-McLain Co., Michigan City, Ind.
Wilks, S., Mfg. Co., Chicago, Ill.

BOILERS, HEATING, DOWN DRAFT.

Bros, Wm. Boiler & Mfg. Co., Minneapolis, Minn.
Bright Idea—Gurney Heater Mfg. Co., Boston, Mass.
Capital—U. S. Radiator Corp., Detroit, Mich.
Casey-Hedges Co., Chattanooga, Tenn.
Central Radiator Co., New York, N. Y. (Trade names—Radex, Radio, Radium.)
Duplex—Frank Prox Co., Terre Haute, Ind.
Harrisburg Star—Harrisburg Star Boiler Corp., New York, N. Y.
Hawley Down Draft Furnace Co., Easton, Pa.
H. & C.—Hart & Crouse, Utica, N. Y.
Herbert Boiler Co., The, Chicago, Ill.
Ideal—American Radiator Co., New York, N. Y.
Imico—Illinois Malleable Iron Co., Chicago, Ill.
Monarch—Wm. H. Page Boiler Co., New York, N. Y.
New Star—Harrisburg Mfg. & Boiler Co., Harrisburg, Pa.
O'Brien Hawley—John O'Brien Boiler Works, St. Louis, Mo.
Oil City Boiler Works, Oil City, Pa.
Pacific—General Boilers Co., Waukegan, Ill.
Peerless Heater Co., Pittsburgh, Pa.
Pierce—Pierce, Butler & Pierce Mfg. Co., New York, N. Y.
Prudential Heater Co., The, Louisville, Ky. (Trade names—Cripps, Prudential.)
Schofield's, J. S., Sons, Macon, Ga.
Smith, H. B., Co., Westfield, Mass.

BOILERS, HEATING, GAS-BURNING.

Alexander, Morrison & Co., Inc., Newark, N. J.
Bacon Heater Mfg. Co., Cleveland, O.
Birchfield Boiler Co., Tacoma, Wash.
Breese Engineering, Inc., Chicago, Ill.
Brown, John, Boiler Co., of Illinois, St. Louis, Mo.
Bryan—Bryan Steam Corporation, Peru, Ind.
Bryant Heater & Mfg. Co., Cleveland, O.
Diamond—The William T. Johnston Co., Cincinnati, O.
EverHot Heater Co., Detroit, Mich.
Gallaher Boiler Co., St. Louis, Mo.
Giblin & Co., Utica, N. Y.
Ideal—American Radiator Co., New York, N. Y.
Jarvies Gas & Oil Burner Co., Kansas City, Mo.
Kane, Wm., Mfg. Co., Philadelphia, Pa.
Lattner, P. M., Mfg. Co., Cedar Rapids, Iowa
McKee—Eclipse Fuel Engineering Co., Rockford, Ill.
Model—John Trageser Steam Copper Works, New York, N. Y.
Mueller, L. J., Furnace Co., Milwaukee, Wis. "Gas-Era."
Ofeldt—Mears-Kane-Ofeldt, Inc., Philadelphia, Pa.
Page, Wm. H., Boiler Co., New York, N. Y. (Trade names—Monarch, Volunteer.)
Peerless Heater Co., Pittsburgh, Pa.
Radium—National Radiator Co., Johnstown, N. Y.
Richmond Radiator Co., New York, N. Y. "Heatomat."
Simplex—Simplex Boiler Co., Pittsburgh, Pa.
Standard—Whitacre Boiler Co., Wellsville, O.
Stewart, Geo. B., Co., Pittsburgh, Pa.
Titusville Iron Works Co., Titusville, Pa.
Triumph—James B. Clow & Sons, Chicago, Ill.
Williams Radiator Co., St. Louis, Mo.
Wise Furnace Co., The, Akron, O.

BOILERS, HEATING, MAGAZINE FEED.

Casey-Hedges Co., Chattanooga, Tenn.
Central Radiator Co., New York, N. Y. (Trade names—Radex, Radio.)
Gorton—Gorton & Lidgerwood Co., New York, N. Y.
Herbert Boiler Co., The, Chicago, Ill.
I. H. Co.—Ideal Heating Co., Brooklyn, N. Y.
Illinois Malleable Iron Co., Chicago, Ill.
Imperial—Utica Heater Co., Utica, N. Y.
Keystone Boiler & Foundry Co., Landisville, Pa.
Newport Boiler Co., Chicago, Ill.
Pierce Down Draft—Pierce, Butler & Pierce Mfg. Corp., New York, N. Y.
Richmond Radiator Co., New York, N. Y.
Spencer Heater Co., Williamsport, Pa. "Spencer."
Thatcher Company, The, Newark, N. J.
Wayne Heater Corp., Richmond, Ind.
Wilks, S., Mfg. Co., Chicago, Ill.

BOILERS, HEATING, STEEL.

Bigelow Co., New Haven, Conn.
Coil—Monitor Boiler Co., Philadelphia, Pa.
Gorton—Gorton & Lidgerwood Co., New York, N. Y.
Heggie-Simplex—Heggie-Simplex Boiler Co., Joliet, Ill.
Johanson—Page Water Tube Boiler Co., Chicago, Ill. (Combined coal and oil burning.)
Kewanee Boiler Co., Kewanee, Ill.
Ross—Frost Mfg. Co., The, Galesburg, Ill.

BOILERS, HORIZONTAL, SCOTCH.

Brennan, John & Co., Inc., Detroit, Mich.
Coatesville Boiler Works, Coatesville, Penna.
Dillon, D. M., Steam Boiler Works, Fitchburg, Mass.
Dutton, C. H., Co., The, Kalamazoo, Mich.
Farrar & Trefts, Inc., Buffalo, N. Y.
Leffel, James, & Co., The, Springfield, O.
Munroe, R., & Sons Mfg. Corp., Pittsburgh, Pa.
Oil City Boiler Works, Oil City, Pa.
Portland Co., The, Portland, Me.
Schofield, J. S., Sons Co., Macon, Ga.
Smith, Samuel, & Son Co., Paterson, N. J.
Toledo Ship Building Co., Toledo, O.
Wickes Boiler Co., The, Saginaw, Mich.

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BOILERS, INTERNALLY FIRED.

Adams—W. T. Adams Machine Co., Corinth, Miss.
Brennan, John, & Co., Detroit, Mich.
C. H.—Casey-Hedges Co., The, Chattanooga, Tenn.
Dutton, C. H., Co., The, Kalamazoo, Mich.
Gem City—Gem City Boiler Works, Dayton, O.
Frost Mfg. Co., Galesburg, Ill.
International Boiler Works Co., East Stroudsburg, Pa.
International Engineering Works, Inc., Framingham, Mass.
Keeler Co., E., Williamsport, Pa.
Leffel—James Leffel & Co., Springfield, O.
Murray—Murray Iron Works Co., Burlington, Ia.
Pennsylvania Boiler Works, Erie, Pa.
Walsh & Weidner Boiler Co., The, Chattanooga, Tenn

BOILERS, LOCOMOTIVE, FIRE BOX.

Adams—W. T. Adams Machine Co., Corinth, Miss.
Andrews—Andrews Heating Co., Minneapolis, Minn
Beggs & Co., James, New York, N. Y.
Brownell Co., Dayton, O.
C. H.—Casey-Hedges Co., The, Chattanooga, Tenn.
Coatesville Boiler Works, Coatesville, Penna.
Codd, E. J., Co., Baltimore, Md. (Scotch.)
Columbiana Boiler Co., Columbiana, O.
Clyde Iron Works, Duluth, Minn.
Detroit—**John Brennan & Co., Inc., Detroit, Mich.**
Detroit—Federal Radiator Co., New Castle, Pa.
Eclipse—Frick Co., Waynesboro, Pa.
Frost Mfg. Co., Galesburg, Ill.
International Boiler Works Co., East Stroudsburg, Pa
Kewanee—Kewanee Boiler Co., Kewanee, Ill.
Leffel—The James Leffel & Co., Springfield, O.
Lombard Iron Works & Supply Co., Augusta, Ga.
Manistee Iron Works Co., Manistee, Mich.
Murray Iron Works Co., Burlington, Iowa.
Nagle—Nagle Engine & Boiler Works, Erie, Pa.
O. & S.—Orr & Sembower, Inc., Reading, Pa.
Oil City Boiler Works, Oil City, Pa.
Oil Well Supply Co., Pittsburg, Pa.
Petroleum Iron Works Co., Sharon, Pa.
Smith & Son Co., Samuel, Paterson, N. J.
Titusville Iron Co., Titusville, Pa.
Weintz Bros., Evansville, Ind.

BOILERS, MARINE AND MARINE TYPE.

Allen Sons Co., Wm. Worcester, Mass
Badenhausen Corp., Cornwells Heights, Pa.
Bigelow Co., The, New Haven, Conn.
Brennan & Co., John, Detroit, Mich. (Scotch.)
C. H.—Casey-Hedges Co., The, Chattanooga, Tenn.
Coatesville Boiler Works, Coatesville, Penna.
Codd Co., E. J., Baltimore, Md.
Columbiana Boiler Co., The, Columbiana, Ohio.
Consolidated Shipbuilding Co., New York City.
Dillon, D. M., Steam Boiler Works, Fitchburg, Mass.
Downey, T. F., Boiler Works, Chicago, Ill.
Fitzgibbon—Fitzgibbon Boiler Co., Oswego, N. Y.
Frost Mfg. Co., The, Galesburg, Ill.
Heine—Heine Boiler Co., St. Louis, Mo.
International Boiler Works Co., East Stroudsburg, Pa
International Engineering Works, Inc., Framingham, Mass. (Scotch.)
Kingsford Foundry & Machine Works, Oswego, N. Y
Leffel—James Leffel & Co., Springfield, O.
Mohr, John, & Sons, Chicago, Ill.
Murray—Murray Iron Works Co., Burlington, Ia.
Oil City Boiler Works, Oil City, Pa.
Pennsylvania Boiler Works, Erie, Pa.
Portland Co., The, Portland, Me.
Smith, Samuel & Son Co., Paterson, N. J
Springfield Boiler Co., Springfield, Ill.
Sun Shipbuilding Co., Wetherill Plant, Chester, Pa. (Scotch.)
Vance Boiler Works, Geneva, N. Y.
Wickes Boiler Co., The, Saginaw, Mich

BOILERS, OIL COUNTRY TYPE.

Detroit—John Brennan & Co., Inc., Detroit, Mich
Brownell Co., The, Dayton, O.
Farrar & Trefts, Inc., Buffalo, N. Y.
Ward—The Chas. Ward Engineering Works, Charleston, W. Va.

BOILERS, RANGE, COPPER.

Badger, E. B., & Sons Co., Boston, Mass.
Brown & Bros.—The Randolph-Clowes Co., Waterbury, Conn.
Bucyrus Copper Kettle Works Co., Bucyrus, O.
Continental—John Trageser Steam Copper Works, New York, N. Y.
Dahlquist Aquatherm—Dahlquist Mfg. Co., South Boston, Mass.
Eagle—Gerstein & Cooper Co., South Boston, Mass "Gerstein & Cooper."
Harris, Arthur, & Co., Chicago, Ill.
Hercules Float Works, Springfield, Mass.
Hayes Mfg. Co., Paterson, N. J. (Trade names—Modern and Wilhelmi.)
Mott, J. L., Iron Works, Trenton, N. J.

BOILERS, RANGE, GALVANIZED.

Carroll—P. Carroll & Sons, Philadelphia, Pa.
Cecave—Pittsburgh Range Boiler Co., Pittsburgh, Pa.
Champion—The Thompson Iron Works, Philadelphia
Detroit Range Boiler & Steel Barrel Co., Detroit, Mich. (Trade names—Detroit, Naco, Star.)
Electric Weld—John Wood Mfg. Co., Conshohocken, Pa.
Koven—L. O. Koven & Bro., Jersey City, N. J.
National—National Steel Construction Co., Seattle, Wash.
Pennsylvania, Philadelphia—Pennsylvania Range Boiler Co., Philadelphia, Pa.
Perfected—New Metal Products Co., Emeryville, Cal.
Perfection—The Casey-Hedges Co., Chattanooga, Tenn.
Riverside, Kopsteel, Kantleak, Hi-trade—Riverside Boiler Works, Inc., Cambridge, Mass.
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.
Wessels—D. D. Wessels & Sons Co., Detroit, Mich.
Wheeling Steel Corp., Wheeling, W. Va.
Wheeling Steel Products Co., Wheeling, W. Va.
Wolff Range Boiler Mfg. Co., Chicago, Ill.

BOILERS, RANGE, AND HEATER COMBINED.

Bastian-Morley Co., The, Laporte, Ind. (Trade names—Automatic, Chicago, Gem, Marvel, Royal, Superior, Unique.)
Duluth Water Heater Co., Duluth, Minn.
Economy Heater Co., Chicago, Ill.
Peerless Boiler Co. (Not inc.), Chicago, Ill.
Peerless Range Boiler Corp., Chicago, Ill.
Richmond Sanitary Mfg. Co., San Francisco, Cal.
Trageser, John, Steam Copper Works, New York.

BOILERS, TUBULAR.

Adams, W. T., Machine Co., Corinth, Miss
Allen Sons Co., Wm., Worcester, Mass
Bass Foundry & Machine Co., The, Ft Wayne, Ind
Bay City Iron Company, Bay City, Mich.
Beach & Son, H. B., Hartford, Conn.
Brennan, John, & Co., Detroit, Mich.
Bretting, C. G., Mfg. Co., Ashland, Wis.
Brownell Co., The, Dayton, O.
C. E. & B. Co.—Clark Engine & Boiler Co., Kalamazoo, Mich.
Champion—Clark Engine & Boiler Co., Kalamazoo, Mich.
Chandler & Taylor Co., Indianapolis, Ind.
C. H.—Casey-Hedges Co., The, Chattanooga, Tenn.

Coatesville Boiler Works, Coatesville, Penna.
Codd Co., E. J., Baltimore, Md.
Cole, R. D., Mfg. Co., Newnan, Ga.
Columbiana Boiler Co., Columbiana, O.
Columbus Steam Boiler & Heater Co., Columbus, Ohio.
Corinth Machinery Co., Corinth, Miss.
Cramp, Wm., & Sons, Ship & Engine Building Co., The, Philadelphia, Pa.
Dillon, D. M., Steam Boiler Works, Fitchburg, Mass.
Directurn—James Beggs & Co., New York, N. Y.
Economist—Dutton, C. H., Co., The, Kalamazoo, Mich.
Farrar & Trefts, Inc., Buffalo, N. Y.
Frost Mfg. Co., Galesburg, Ill.
Gem City Boiler Works, Dayton, O.
Hartley Boiler Works, Montgomery, Ala.
Herbert—The Herbert Boiler Co., Chicago, Ill.
Hoosier—The Sinker-Davis Co., Indianapolis, Ind.
International Boiler Works Co., The, East Stroudsburg, Pa.
International Engineering Works, Inc., Framingham, Mass.
Jamestown Boiler Works, Jamestown, N. Y.
Keeler—E. Keeler Co., Williamsport, Pa.
Kewanee Boiler Co., Kewanee, Ill.
King-Bate Co., The, Conshohocken, Pa.
Kroeschell—Brunswick-Kroeschell Co., Chicago, Ill.
Lappan Mfg. Co., The James, Pittsburg, Pa.
Leffel—The James Leffel & Co., Springfield, O.
Lombard Iron Works & Supply Co., Augusta, Ga.
Milwaukee Boiler Mfg. Co., The, Milwaukee, Wis.
Mohr & Sons, John, Chicago, Ill.
Munroe, R., & Sons Mfg. Corp., Pittsburgh, Pa.
Murray—Murray Iron Works, Burlington, Ia.
Nagle—Nagle Engine & Boiler Works, Erie, Pa.
O'Brien—John O'Brien Boiler Works Co., St. Louis.
Ohio Machine & Boiler Co., The, Cleveland, O.
Oilwell Supply Co., Pittsburgh, Pa.
Orr & Sembower, Inc., Reading, Pa.
Prospect Boiler Co., The, New Brunswick, N. J.
Reading Scale & Machine Co., Reading, Pa.
Ruemmeli-Dawley Mfg. Co., St. Louis, Mo.
Schofield—J. S. Schofield's Sons Co., Macon, Ga.
Smith & Son Co., Samuel, Paterson, N. J.
Southern Engine & Boiler Works, Jackson, Tenn.
Titusville—The Titusville Iron Works Co., Titusville, Pa.
Tri-State—Tri-State Engineering Co., Zanesville, Ohio.
Tudor Boiler Mfg. Co., The, Cincinnati, O.
Uniflow—J. K. Petty & Co., Inc., Philadelphia, Pa.
Union Boiler & Mfg. Co., Lebanon, Pa.
Union Iron Works, Erie, Pa.
Union Iron Works, Selma, Ala.
Vance Boiler Works, Geneva, N. Y.
Vogt, Henry, Machine Co., Louisville, Ky. (horizontal, return.)
Walsh & Weidner Boiler Co., The, Chattanooga, Tenn.
Walton, C. J., & Son, Louisville, Ky.
Weintz Bros., Evansville, Ind.
Wholey Boiler Works, Providence, R. I.
Wickes—Wickes Boiler Co., The, Saginaw, Mich.

BOILERS, TUBULAR, PORTABLE.

Bay City Iron Company, Bay City, Mich.
Beggs & Co., James, New York, N. Y.
C. H.—Casey-Hedges Co., The, Chattanooga, Tenn.
Clark Engine & Boiler Co., Kalamazoo, Mich.
Columbiana Boiler Co., Columbiana, O.
Electric—Oil City Boiler Works, Oil City, Pa.
Farrar & Trefts, Inc., Buffalo, N. Y.
Frost Mfg. Co., The, Galesburg, Ill.
Improved Appliance Co., Brooklyn, N. Y. (gas).
Keller Co., E., Williamsport, Pa.
King-Bate Co., The, Conshohocken, Pa. "Bate Patent."
Leffel—James Leffel & Co., Springfield, O.
Leidecker Tool Co., Marietta, O.
Nagle Engine & Boiler Co., Erie, Pa.
New Era—Liddell Co., Charlotte, N. C.
Oil Well Supply Co., Pittsburg, Pa.
Ryan—Sistersville Boiler Works, Sistersville, W. Va.
Vance Boiler Works, Geneva, N. Y.
Walsh & Weidner Boiler Co., The, Chattanooga, Tenn.

BOILERS, VERTICAL.

Bay City Iron Co., Bay City, Mich.
Beach, H. B., & Son, Hartford, Conn.
Brennan & Co., John, Detroit, Mich.
Bros—Wm. Bros Boiler & Mfg. Co., Minneapolis, Minn.
Brownell Co., The, Dayton, Ohio.
Byers, John F., Machine Co., Ravenna, Ohio.
Chandler & Taylor Co., Indianapolis, Ind.
C. H.—Casey-Hedges Co., The, Chattanooga, Tenn.
Cole-Manning—R. D. Cole Mfg. Co., Newnan, Ga.
Columbus Steam Boiler & Heater Co., Columbus, O.
C. V.—Clark Engine & Boiler Co., Kalamazoo, Mich.
Dillon, D. M., Steam Boiler Works, Fitchburg, Mass.
Farquhar—A. B. Farquhar Co., Ltd., York, Pa.
Farrar & Trefts, Inc., Buffalo, N. Y.
Frost Mfg. Co., Galesburg, Ill.
Gem City Boiler Works, Dayton, O.
Hoosier—The Sinker-Davis Co., Indianapolis, Ind.
Improved Appliance Co., Brooklyn, N. Y. (gas).
International Boiler Works Co., East Stroudsburg, Pa.
International Engineering Works, Inc., Framingham, Mass.
Keeler Co., E., Williamsport, Pa.
Leffel—The James Leffel & Co., Springfield, O.
Little Giant—The C. H. Dutton Co., Kalamazoo, Mich.
Munroe & Sons Mfg. Corp., R., Pittsburg, Pa.
Murray—Murray Iron Works Co., Burlington, Ia.
Nagle—Nagle Engine & Boiler Works, Erie, Pa.
O'Brien Boiler Works, John, St. Louis, Mo.
Orr & Sembower, Inc., Reading, Pa.
Portland Co., The, Portland, Me.
Smith & Son Co., Samuel, Paterson, N. J.
Uniflow—J. K. Petty & Co., Inc., Philadelphia, Pa.
Walsh & Weidner Boiler Co., The, Chattanooga, Tenn.

BOILERS, WASTE HEAT.

Heine Boiler Co., St. Louis, Mo.
Ladd Water Tube Boiler Co., Pittsburgh, Pa. "Ladd."
Page—Page Water Tube Boiler Co., Chicago, Ill.

BOILERS, WATER TUBE.

Abco—The Abco Boiler Corp., Brooklyn, N. Y.
Almy Water Tube Boiler Co., Providence, R. I.
A. & R.—Abendroth & Root Mfg. Co., Newburgh, N. Y.
Badenhausen Corp., Cornwells Heights, Pa. "Badenhausen."
Bass Foundry & Machine Co., The, Ft. Wayne, Ind.
Beach, H. B., & Son, Hartford, Conn.
Berry—The Berry Engineering Co., Chester, Pa.
Brownell Co., The, Dayton, O.
Butman—Manistee Iron Works Co., Manistee, Mich.
C. H.—Casey-Hedges Co., The, Chattanooga, Tenn.
Codd, E. J., Co., Baltimore, Md.
Connelly, D., Boiler Co., Cleveland, Ohio.
Consolidated Shipbuilding Corp., New York, N. Y.
Detroit—John Brennan & Co., Detroit, Mich.
Edge Moor—Edge Moor Iron Co., Edge Moor, Del.
Flanner Water Tube Boiler Co., Akron, O.
Franklin—Nagel Engine & Boiler Works, Erie, Pa.
Frost Mfg. Co., The, Galesburg, Ill.
Griffiths, James A., & Sons, Philadelphia, Pa.
Heine Boiler Co., St. Louis, Mo.
Hohenstein—Oil City Boiler Works, Oil City, Pa.
Improved Appliance Co., Brooklyn, N. Y. (gas).
International Engineering Works, Inc., Framingham, Mass.
Keeler—E. Keeler Co., Williamsport, Pa.
Keystone Boiler & Foundry Co., Landisville, Pa.
Kingsford Foundry & Machine Works, Oswego, N. Y.
Kroeschell—Brunswick-Kroeschell Co., Chicago, Ill.
Ladd Water Tube Boiler Co., Pittsburgh, Pa. "Ladd."
McAleeman Corp'n, Pittsburgh, Penna.
Mohr, John, & Sons, Chicago, Ill.
Munroe Patent Safety—Munroe & Sons Mfg. Corp., R., Pittsburg, Pa.
Murray Iron Works Co., Burlington, Ia.
Oil City—Oil City Boiler Works, Oil City, Pa.
O. W. S.—Oil Well Supply Co., Pittsburgh, Pa.
Page—Page Water Tube Boiler Co., Chicago, Ill. (self contained.)
Parker Downflow—Pardel Corp., Philadelphia, Pa.
Porcupine Company, The, Fairfield, Conn.
Roberts—Roberts Safety Water Tube Boiler Co., Red Bank, N. J.
Root—Abendroth & Root Mfg. Co., Newburgh, N. Y.
Springfield Boiler Co., Springfield, Ill.
Stirling Rust—Babcock & Wilcox Co., New York, N. Y.
Toledo Ship Building Co., Toledo, O.
Union—Union Iron Works, Erie, Pa.
Vogt—Henry Vogt Machine Co., Louisville, Ky.
Walsh & Weidner Boiler Co., The, Chattanooga, Tenn.
Walton, C. J., & Son, Louisville, Ky.
Ward, Chas., The, Engineering Works, Charleston, W. Va.
Wickes Boiler Co., Saginaw, Mich.
Wilkinson—Oil Well Supply Co., Pittsburg, Pa.
Worthington—James Beggs & Co., New York, N. Y.
Wright, Paul, & Co., Birmingham, Ala.
Young & Sons, E. R., Titusville, Pa.

BOLT ENDS.

American Bolt Corp., Chicago, Ill.; Detroit, Mich.; Bayonne, N. J.
American Bolt Co., Birmingham, Ala.
American Equipment Co., Norristown, Pa.
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Bolt Co., North Tonawanda, N. Y.
Coatesville Boiler Works, Coatesville, Penna.
Haskell Mfg. Co., W. H., Pawtucket, R. I.
Lake Erie Bolt & Nut Co., Cleveland, O.
Lamson & Sessions Co., Cleveland, O.
Lanz, M., Bolt Co., Pittsburgh, Pa.
Milton Mfg. Co., The, Milton, Pa.
Modern Mfg. Co., The, Cleveland, O.
Oliver Iron & Steel Corp., Pittsburgh, Pa.
St. Louis Screw Co., St. Louis, Mo.
Scranton Bolt & Nut Co., Scranton, Pa.
Superior—The Superior Screw & Bolt Mfg. Co., Cleveland, O.

BOLTS, BLANK.

American Bolt Co., Birmingham, Ala.
American Equipment Co., Norristown, Pa.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
Lamson & Sessions Co., Cleveland, O.
Lanz, M., Bolt Co., Pittsburgh, Pa.
Lebanon Iron Co., Philadelphia, Pa.
Oliver Iron & Steel Corp., Pittsburgh, Pa.
Paragon Tool Co., Seattle, Wash.
St. Louis Screw Co., St. Louis, Mo.
Scranton Bolt & Nut Co., Scranton, Pa.
Superior—The Superior Screw & Bolt Mfg. Co., Cleveland, O.

BOLTS, BOILER PATCH.

Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Chicago Screw Co., The, Chicago, Ill.
Hartford Machine Screw Co., Hartford, Conn.
Oliver Iron & Steel Corp., Pittsburgh, Pa.
Paragon Tool Co., Seattle, Wash.
Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.
Rochester Machine Screw Co., Rochester, N. Y.
St. Louis Screw Co., St. Louis, Mo.
Scully Steel & Iron Co., Chicago, Ill.
Worcester Machine Screw Co., Worcester, Mass.

BOLTS, BOILER STAY.

American—American Flexible Bolt Co., Zellenople, Pa.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Davis & Hemphill, Elkridge, Md.
Detroit—Detroit Seamless Steel Tubes Co., Detroit, Mich. (hollow).
Haskell Mfg. Co., Wm. H., Pawtucket, R. I.
Lanz, M., Bolt Co., Pittsburgh, Pa.
O'Leary, Arthur J., & Son Co., Chicago, Ill.
Oliver Iron & Steel Corp., Pittsburgh, Pa.
Otis, Spencer, Co., Chicago, Ill.
Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.
Republic Iron & Steel Co., Youngstown, O.
St. Louis Screw Co., St. Louis, Mo.
Tate—The Flannery Bolt Co., Pittsburgh, Pa.

BOLTS, BRASS AND COPPER.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Columbus Brass Co., The, Columbus, O.
Davis & Hemphill, Elkridge, Md.
Edna Brass Mfg. Co., Cincinnati, O.
Franklin Moore Co., Winsted, Conn.
Gaskell, Wm., & Son, Brooklyn, N. Y.
Harris—Arthur Harris & Co., Chicago, Ill.
Haskell, William H., Mfg. Co., Pawtucket, R. I.
Moran Bolt & Nut Mfg. Co., St. Louis, Mo.
National Marine Lamp Co., Forestville, Conn.
Pawtucket Mfg. Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Richardson, Edro, Brass Co., Baltimore, Md.
St. Louis Screw Co., St. Louis, Mo.
Standard Nut & Bolt Co., Valley Falls, R. I.
Star—U. T. Hungerford Brass & Copper Co., New York, N. Y.
Steward & Romaine Mfg. Co., Philadelphia, Pa
Waltham Appliance Co., Waltham, Mass.

BOLTS, BRIDGE AND ROOF.

American Equipment Co., Norristown, Pa.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Bourne-Fuller Co., The, Cleveland, O., and Unionville, Conn.
Lake Erie Bolt & Nut Co., Cleveland, O.
Lanz, M., Bolt Co., Pittsburgh, Pa.
McGookin, D. H., Philadelphia, Pa.
Moran Bolt & Nut Mfg. Co., St. Louis, Mo.
Oliver Iron & Steel Corp., Pittsburgh, Pa.
Pittsburgh Rivet Co., Pittsburgh, Pa.
Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.
Scranton Bolt & Nut Co., Scranton, Pa.
St. Louis Screw Co., St. Louis, Mo.

BOLTS, BRONZE.

Phosphor Bronze Smelting Co., The, Philadelphia, Pa.

BOLTS, CARRIAGE.

American Equipment Co., Norristown, Pa.
Atlas—Atlas Bolt & Screw Co., Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Bourne-Fuller Co., The, Cleveland, O., and Unionville, Conn.
Buckeye—Lamson & Sessions Co., Cleveland, O.
Buffalo Bolt Co., North Tonawanda, N. Y.
Clark Bros. Bolt Co., Millidale, Conn.
Columbus Bolt Works Co., Columbus, O.
Empire—Russell, Burdsall & Ward Bolt & Nut Co., Port Chester, N. Y.
Fischer & Hayes Rope & Steel Co., Chicago, Ill.
Franklin Moore Co., Winsted, Conn.
Gary Screw & Bolt Co., Chicago, Ill.
Graham Bolt & Nut Co., Pittsburgh, Pa.
Kansas City Bolt & Nut Co., The, Kansas City, Mo.
Lake Erie Bolt & Nut Co., Cleveland, O.
Lanz, M., Bolt Co., Pittsburgh, Pa.
Lebanon Iron Co., Philadelphia, Pa.
Milton Mfg. Co., The, Milton, Pa.
Moran Bolt & Nut Mfg. Co., St. Louis, Mo.
National—National Screw & Mfg. Co., Cleveland, O.
Neely Bolt & Nut Co., The, Pittsburgh, Pa.
O'Leary, Arthur J., & Sons Co., Chicago, Ill.
Perfection—Foster Bolt & Nut Mfg. Co., Cleveland, Ohio.
Oliver—Oliver Iron & Steel Corp., Pittsburgh, Pa.
Philadelphia—Lamson & Sessions Co., Cleveland, O.
Republic Iron & Steel Co., Youngstown, O.
Standard Bolt Co., Columbus, O.
St. Louis Screw Co., St. Louis, Mo.
Scranton Bolt & Nut Co., Scranton, Pa.
Superior Screw & Bolt Mfg. Co., Cleveland, O.
Wilcox, Crittenden & Co., Middletown, Conn.

BOLTS, CLOSET.

Ackerman-Johnson Co., Chicago, Ill.
Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Always Reliable—Otto Bernz Co., New York, N. Y.
American Foundry & Mfg. Co., St. Louis, Mo.
Ampinco—American Pin Co., Waterbury, Conn.
Ansonia Mfg. Co., Ansonia, Conn.
Bignall Co., The, Medina, N. Y.
Brey & Krause Mfg. Co., Allentown, Pa.
Chicago Nut Mfg. Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Equipoise Co., The, Waterbury, Conn.
Everitt Co., Boston, Mass.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Flannery, P. J., Co., New Britain, Conn.
Frank Bros., New York, N. Y.
Frost Mfg Co., The, Kenosha, Wis.
Hansen Bros. Mfg. Co., Grand Rapids, Mich.
Lanz, M., Bolt Co., Pittsburgh, Pa.
Peerless Mfg. & Supply Co., New York, N. Y.
Prier Brass Mfg. Co., Kansas City, Mo.
Renton—Simplex Boiler Co., Brooklyn, N. Y.
Richardson, Edro, Brass Co., Baltimore, Md.
Russell, John M., Mfg. Co., The, Inc., Naugatuck, Conn.
Trenton Brass & Machine Co., Trenton, N. J.
Union Brass & Metal Mfg. Co., Saint Paul, Minn.
Waterbury Mfg. Co., Waterbury, Conn.
Wiseco—J. B. Wise, Inc., Watertown, N. Y.
Woodward-Wanger Co., Philadelphia.

BOLTS, CLOSET DOOR.

American Foundry & Mfg. Co., St. Louis, Mo.
Bommer Spring Hinge Co., Brooklyn, N. Y.
Brey & Krause Mfg. Co., Allentown, Pa.
Chicago Spring Hinge Co., Chicago, Ill.
Clow, James B., & Son, Chicago, Ill.
Columbus Brass Co., The, Columbus, O.
Edwardsville Brass Co., Edwardsville, Ill.
Niles—Glenn Mfg. Co., Saint Charles, Ill
Sargent & Co., New Haven, Conn.
Speakman Co., Wilmington, Del.
Street & Kent Mfg. Co., Chicago, Ill.

BOLTS, COACH AND LAG.

Superior Screw & Bolt Mfg. Co., Cleveland, Ohio.

BOLTS, COLLAR.

Belco—The Bell Company, Buffalo, N. Y.
Bethlehem Steel Co., Bethlehem, Pa
St. Louis Screw Co., St. Louis, Mo.

BOLTS, CONNECTING ROD.

Atlas Bolt & Screw Co., Cleveland, O.
Belco—The Bell Company, Buffalo, N. Y.
Cleveland Wrought Products Co., Cleveland, O.
Ferry Cap & Set Screw Co., Cleveland, O.
Muncie Cap & Set Screw Co., Muncie, Ind.
Pheoll Mfg. Co., Chicago, Ill.

BOLTS, FOR SETTING IN CONCRETE.

Chicago Expansion Bolt Co., Chicago, Ill.
Modern Mfg. Co., The, Cleveland, O.

BOLTS, COUNTERSUNK.

Belco—The Bell Company, Buffalo, N. Y.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Lanz, M., Bolt Co., Pittsburgh, Pa.
Lebanon Iron Co., Philadelphia, Pa.
Scranton Bolt & Nut Co., Scranton, Pa.
St. Louis Screw Co., St. Louis, Mo.
Wilcox, Crittenden & Co., Inc., Middletown, Conn.

BOLTS, COUPLING.

Belco—The Bell Company, Buffalo, N. Y.
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Bolt Co., North Tonawanda, N. Y.
Chicago Screw Co., The, Chicago, Ill.
Detroit Screw Works, Detroit, Mich.
Ferry—Ferry Cap & Set Screw Co., Cleveland, O.
Haskell, Wm. H., Mfg. Co., Pawtucket, R. I.
Moran Bolt & Nut Mfg. Co., St. Louis, Mo.

Oliver Iron & Steel Corp., Pittsburgh, Pa.
Ottemiller, Wm. H., Co., The York, Pa.
Rochester Machine Screw Co., Rochester, N. Y.
St. Louis Screw Co., St. Louis, Mo.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

BOLTS, DECK.

St. Louis Screw Co., St. Louis, Mo.

BOLTS, DRIFT.

Ames, W., & Co., Jersey City, N. J.
Boss Bolt & Nut Co., Chicago, Ill.
Bourne-Fuller Co., The, Cleveland, O., and Unionville, Conn.
St. Louis Screw Co., St. Louis, Mo.
Wilcox, Crittenden & Co., Inc., Middletown, Conn.

BOLTS, ELEVATOR BUCKET.

American Screw Co., Providence, R. I.
Atlas Bolt & Screw Co., Cleveland, O.
Bethlehem Steel Co. Bethlehem, Pa.
Bourne-Fuller Co., The, Cleveland, O., and Unionville, Conn.
Buffalo Bolt Co., North Tonawanda, N. Y.
Caldwell, H. W., & Son Company, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Columbus Bolt Works Co., Columbus, O.
Howe Chain Co., Muskegon, Mich.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Lamson & Sessions Co., Cleveland, O.
Link-Belt Company, Chicago and Philadelphia.
Mullins Body Corp., Salem, O.
Weller Mfg. Co., Chicago, Ill.

BOLTS, EXPANSION.

Ackerman-Johnson Co., Chicago, Ill.
Ahlstrom—Steward & Romaine Mfg. Co., Philadelphia, Pa.
Ajax—Chicago Nut Mfg. Co., Chicago, Ill.
Ankyra—Ankyra Mfg. Co., Philadelphia, Pa.
Barretts N. U.—Barrett Sales Co., The, Chicago, Ill.
Chicago Expansion Bolt Co., Chicago, Ill.
Church's—Isaac Church Expansion Bolt Co., East Norwalk, Conn.
Cinch—National Lead Co., New York, N. Y.
Columbus—The Columbus Brass Co., Columbus, O.
Crown—Diamond Expansion Bolt Co., New York.
Diamond—Diamond Expansion Bolt Co., New York
Duplex—Isaac Church Expansion Bolt Co., East Norwalk, Conn.

DEPENDABLE

EYE BOLTS Drop Forged

Fig. 214

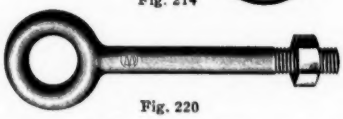


Fig. 220

Drop Forged Screw Eye Bolts. Regular and Small Eye. Regular Eye in sizes ¼ to 1¼. Small eye in sizes ¼ to 1 inch.

Eye Bolts to Rivet with Regular or Small Eye. Regular Eye in sizes ¼ to 1¼ inches; Small Eye in sizes ¼ to 1¼ inches.

Shoulder Screw Eye Bolts in sizes ¼ to 1¼ inches.

Shoulder Eye Bolts to Rivet in sizes ¼ to 1¼ inches.

Nut Eye Bolts, Regular and Small Eye; Regular Eye furnished in sizes ¼ to 1¼ inches; Small Eye in sizes ¼ to 1¼ inches.

Shoulder Nut Eye Bolts in sizes ¼ to 1¼ inches.

All furnished galvanized or self-colored, in regular or extra lengths. All Galvanizing by the Durable Hot Process.

Prompt Shipments from Finished Stock. Try Us!

Wilcox, Crittenden & Co., Inc.
333 South Main Street Middletown, Conn.
Established 1847

DEPENDABLE

RING BOLTS

Drop Forged, Weldless

Fig. 212

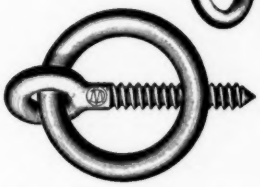


Fig. 208

Hot Galvanized or Self Colored. In sizes ¼ to 1¼ inches. Also furnished with Shoulder and to Rivet.

Prompt Shipments from finished Stock. Try Us!

Wilcox, Crittenden & Co., Inc.
333 South Main Street
MIDDLETOWN, CONN.
Established 1847

Evans, F. H., Brooklyn, N. Y. (Trade names—Crescent, Evans.)
F. & M.—Fee & Mason Mfg. Co., New York, N. Y.
Garrison-Helland Corp., New York, N. Y. (Trade names—Beekman, Phillips.)
Keystone—Diamond Expansion Bolt Co., New York.
Lanz, M., Bolt Co., Pittsburgh, Pa.
McCabe—McCabe Hanger Mfg. Co., The, New York, N. Y.
O. K.—Isaac Church Expansion Bolt Co., East Norwalk, Conn.
Oliver Iron & Steel Corp., Pittsburgh, Pa.
Paine—The Paine Co., Chicago, Ill.
Perfect—Isaac Church Expansion Bolt Co., East Norwalk, Conn.
Philadelphia—Steward & Romaine Mfg. Co., Philadelphia, Pa.
Positive—Steward & Romaine Mfg. Co., Philadelphia, Pa.
Savage Expansion Bolt Co., New York, N. Y.
Sebco—Star Expansion Bolt Co., New York, N. Y.
S. & R.—Steward & Romaine Mfg. Co., Philadelphia.
U. S. E.—U. S. Expansion Bolt Co., New York, N. Y.
Van—Van Expansion Bolt Mfg. Co., Chicago, Ill.
Walworth Company, Boston, Mass.

BOLTS, EYE, HOOK, AND RING.

American Wire & Cable Co., Inc., The, New York.
Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Chain Products Co., The, Cleveland, O.
Chicago Hardware & Fixture Co., Chicago, Ill.
Garland Mfg. Co., Pittsburgh, Pa.
Harper, H. M., Co., The, Evanston, Ill.
Jencks, E., Mfg. Co., Worcester, Mass.
Lamson & Sessions Co., The, Cleveland, O.
Lanz, M., Bolt Co., Pittsburgh, Pa.
Laughlin, Thomas, Co., The, Portland, Me.
Marine Hardware Equipment Co., S. Portland, Me
Modern Mfg. Co., The, Cleveland, O.
New England Bolt Co., Inc., Everett, Mass.
Oliver Iron & Steel Corp., Pittsburgh, Pa.
Smith, H. D., & Co., The, Plantsville, Conn.
St. Louis Screw Co., St. Louis, Mo.
Steward & Romaine Mfg. Co., Philadelphia, Pa
Superior Screw & Bolt Mfg. Co., Cleveland, O.
United States Chain and Forging Co., Pittsburgh, Pa
Vulcan—J. H. Williams & Co., Buffalo, N. Y.
Wilcox, Crittenden & Co., Inc., Middletown, Conn.

BOLTS, FLATTENED END.

Modern Mfg. Co., The, Cleveland, O.

BOLTS, GALVANIZED.

American Wire & Cable Co., Inc., The, New York, N. Y.
Ames, W., & Co., Jersey City, N. J.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Bourne-Fuller Co., The, Cleveland, O., and Unionville, Conn.
Galvanized Products Co. Phillipsburg, N. J.
Lanz, M., Bolt Co., Pittsburgh, Pa.
Oliver Iron & Steel Corp., Pittsburgh, Pa.
Pheoll Mfg. Co., Chicago, Ill.
St. Louis Screw Co., St. Louis, Mo.
Superior Screw & Bolt Mfg. Co., Cleveland, O.

BOLTS, HANGER.

American Screw Co., Providence, R. I.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Milton Mfg. Co., The, Milton, Pa.
National Marine Lamp Co., The, New York, N. Y.
National—National Screw and Mfg. Co., Cleveland, O.
St. Louis Screw Co., St. Louis, Mo.
Steward & Romaine Mfg. Co., Philadelphia, Pa.
Vandegift & Morris, The, Shelbyville, Ind.
Wilcox, Crittenden & Co., Inc., Middletown, Conn.
Wood, T. B., Sons Company, Chambersburg, Pa.

BOLTS, LAG.

Atlas Bolt & Screw Co., Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Columbus Bolt Works Co., Columbus, Ohio.
Fischer & Hayes Rope & Steel Co., Chicago, Ill.
Lake Erie Bolt & Nut Co., Cleveland, O.
Lanz, M., Bolt Co., Pittsburgh, Pa.
Neely Nut & Bolt Co., Pittsburgh, Pa.
Oliver Iron & Steel Corp., Pittsburgh, Pa.
Superior Screw & Bolt Mfg. Co., Cleveland, O.

BOLTS, LOOM.

Haskell Mfg. Co., W. H., Pawtucket, R. I.
Lanz, M., Bolt Co., Pittsburgh, Pa.
Standard Nut & Bolt Co., Valley Falls, R. I.

BOLTS, MACHINE.

American Bolt Co., Birmingham, Ala.
American Equipment Co., Norristown, Pa.
Ames, W., & Co., Jersey City, N. J.
Atlas—Atlas Bolt & Screw Co., Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Bourne-Fuller Co., The, Cleveland, O., and Unionville, Conn.
Buffalo Bolt Co., North Tonawanda, N. Y.
Clark Bros. Bolt Co., Milldale, Conn.
Columbus Bolt Works Co., Columbus, O.
Eastern Bolt & Nut Co., Providence, R. I.
Empire—Russell, Burdsall & Ward Bolt & Nut Co., Port Chester, N. Y.
Fischer & Hayes Rope & Steel Co., Chicago, Ill.
Garland Manufacturing Co., Pittsburgh, Pa.
Gary Screw & Bolt Co., Chicago, Ill.
Grabler Sure Lock—Grabler Mfg. Co., Cleveland, O
Graham Bolt & Nut Co., Pittsburgh, Pa.
Haskell, W. H., Mfg. Co., Pawtucket, R. I.
Hoopes & Townsend Co., Philadelphia, Pa.
Kansas City Bolt & Nut Co., The, Kansas City, Mo.
Kirk-Latty Mfg. Co., The, Cleveland, O.
Lake Erie Bolt & Nut Co., Cleveland, O.
Lamson & Sessions Co., The, Cleveland, O.
Lanz, M., Bolt Co., Pittsburgh, Pa.
Lebanon Iron Co., Philadelphia, Pa.
McCabe—The McCabe Hanger Mfg. Co., New York, N. Y.
Maryland Bolt & Nut Co., Baltimore, Md.
Merrill Brothers, Maspeth, New York, N. Y.
Milton Mfg. Co., The, Milton, Pa.
Modern Mfg. Co., The, Cleveland, O.
Moran Bolt & Nut Mfg. Co., St. Louis, Mo.
National Acme Co., Cleveland, O.
National—National Screw & Mfg. Co., Cleveland, O.
Neely Nut & Bolt Co., Pittsburgh, Pa.
Ohio Nut & Bolt Co., Berea, O.
O'Leary, Arthur J., & Son Co., Chicago, Ill.
Oliver Iron & Steel Corp., Pittsburgh, Pa.
Pawtucket Mfg. Co., Pawtucket, R. I.
Perfection—Foster Bolt & Nut Mfg. Co., Cleveland, O.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Rivet Co., Pittsburgh, Pa.
Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.
Republic Iron & Steel Co., Youngstown, O.
Rockford Bolt Co., Rockford, Ill.
St. Louis Screw Co., St. Louis, Mo.
Scranton Bolt & Nut Co., Scranton, Pa.
Standard Bolt Co., Columbus, O.
Standard Nut & Bolt Co., Valley Falls, R. I.
Standard Pressed Steel Co., Jenkintown, Pa.
Steward & Romaine Mfg. Co., Philadelphia, Pa.
Superior Screw & Bolt Mfg. Co., Cleveland, O.

BOLTS, MONEL METAL.

Boss Bolt & Nut Co., Chicago, Ill.
Superior Screw & Bolt Mfg. Co., Cleveland, O.

BOLTS, PLANER HEAD.

Belco—The Bell Company, Buffalo, N. Y.
Cad—Standard Shop Equipment Co., Philadelphia
Chicago Screw Co., The, Chicago, Ill.
Detroit Screw Works, Detroit, Mich.
Hartford Machine Screw Co., Hartford, Conn.
Pawtucket Mfg. Co., Pawtucket, R. I.
Rochester Machine Screw Co., Rochester, N. Y.
St. Louis Screw Co., St. Louis, Mo.
Western Automatic Machine Screw Co., The, Elyria, Ohio.
Worcester Machine Screw Co., Worcester, Mass.

BOLTS, PLOW.

Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Bourne-Fuller Co., The, Cleveland, O., and Unionville, Conn.
Buffalo Bolt Co., North Tonawanda, N. Y.
Clark Bros. Bolt Co., Milldale, Conn.
Columbus Bolt Works Co., Columbus, O.
Corbin Screw Corp., New Britain, Conn.
Empire—Russell, Burdsall & Ward Bolt & Nut Co., Port Chester, N. Y.
Lake Erie Bolt & Nut Co., Cleveland, O.
Lamson & Sessions Co., The, Cleveland, O.
Standard Bolt Co., Columbus, O.
Superior—The Superior Screw & Bolt Mfg. Co.

BOLTS, PORCELAIN HEAD.

Fairfacts Co., New York, N. Y.
Hutter, Karl, Inc., New York, N. Y.

BOLTS, SHACKLE.

No-Soun—Ferry Cap & Set Screw Co., Cleveland, O.
Victor-Peninsular Company, Detroit, Mich.

BOLTS, SINK, STOVE AND TIRE.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American Screw Co., Providence, R. I.
Atlas Bolt & Screw Co., Cleveland, O.
Barber Mfg. Co., The, Ashtabula, O.
Boss Bolt & Nut Co., Chicago, Ill.
Bourne-Fuller Co., The, Cleveland, O., and Unionville, Conn.
Buffalo Bolt Co., North Tonawanda, N. Y.
Corbin Screw Corp., New Britain, Conn.
Empire—Russell, Burdsall & Ward Bolt & Nut Co., Port Chester, N. Y.
Grabler Universal—Grabler Mfg. Co., Cleveland, O.
Handy Assortment—Heiz & Heiz, New York, N. Y.
National—National Screw & Mfg. Co., Cleveland, O.
Perfection—Foster Bolt & Nut Mfg. Co., Cleveland, Ohio.
Pheoll Mfg. Co., Chicago, Ill.
Ohio Nut & Bolt Co., Berea, O.
Reed & Prince Mfg. Co., Worcester, Mass.
Reidy Machine Screw Co., New Haven, Conn.
Rodd's Patent—The Lamson & Sessions Co., Cleveland, O.
St. Louis Screw Co., St. Louis, Mo.
Superior Screw & Bolt Mfg. Co., Cleveland, O.
Wilcox, Crittenden & Co., Inc., Middletown, Conn.

BOLTS, SPRING.

Atlas Bolt & Screw Co., Cleveland, O.
Belco—The Bell Company, Buffalo, N. Y.
Boss Bolt & Nut Co., Chicago, Ill.
Empress—Bowen Products Corp., Auburn, N. Y.
Fostoria Screw Co., Fostoria, O.
Superior Screw & Bolt Mfg. Co., Cleveland, O.

BOLTS, STEP.

Superior Screw & Bolt Mfg. Co., Cleveland, O.

BOLTS, STUD.

American Bolt Co., Birmingham, Ala.
Belco—The Bell Company, Buffalo, N. Y.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Bourne-Fuller Co., The, Cleveland, O., and Unionville, Conn.
Buffalo Bolt Co., North Tonawanda, N. Y.
Buffalo Nipple & Machine Co., Inc., Buffalo, N. Y.
Detroit Screw Works, Detroit, Mich.
Lake Erie Bolt & Nut Co., Cleveland, O.
Lamson & Sessions Co., The, Cleveland, O.
Lanz, M., Bolt Co., Pittsburgh, Pa.
Milton Mfg. Co., The, Milton, Pa.
Muncie Cap & Set Screw Co., Muncie, Ind.
Oliver Iron & Steel Corp., Pittsburgh, Pa.
Paragon Tool Co., Seattle, Wash.
Scranton Bolt & Nut Co., Scranton, Pa.
St. Louis Screw Co., St. Louis, Mo.
Superior Screw & Bolt Mfg. Co., Cleveland, O.
Walworth Company, Boston, Mass.

BOLTS, T HEAD.

Boss Bolt & Nut Co., Chicago, Ill.
Cad—Standard Shop Equipment Co., Philadelphia, Pa.
St. Louis Screw Co., St. Louis, Mo.

BOLTS, TAP.

Bay State—Bay State Tap & Die Co., Mansfield, Mass
Belco—The Bell Company, Buffalo, N. Y.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Buffalo Bolt Co., North Tonawanda, N. Y.
Haskell, W. H., Mfg. Co., Pawtucket, R. I.
Lake Erie Bolt & Nut Co., Cleveland, O.
Lanz, M., Bolt Co., Pittsburgh, Pa.
Lebanon Iron Co., Philadelphia, Pa.
Milton Mfg. Co., The, Milton, Pa.
National—National Screw & Mfg. Co., Cleveland, O.
Oliver Iron & Steel Corp., Pittsburgh, Pa.
Pawtucket Mfg. Co., Pawtucket, R. I.
St. Louis Screw Co., St. Louis, Mo.
Upson—The Bourne-Fuller Co., Cleveland, O.

BOLTS AND RODS, TIE.

Columbus Bolt Works Co., The, Columbus, O.
Empress—Bowen Products Corp., Auburn, N. Y.
Ferry Cap & Set Screw Co., Cleveland, O.
Steel Specialties Co., Wakefield, Mass.

BOLTS, TOGGLE OR ANCHOR.

Ajax—Chicago Nut Mfg. Co., Chicago, Ill.
Ankyra—Ankyra Mfg. Co., Wayne Junction, Philadelphia, Pa.
Barrett—The Barrett Sales Co., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Chicago Expansion Bolt Co., Chicago, Ill.
Church—Isaac Church Expansion Bolt Co., East Norwalk, Conn.
Crescent—McGill Mfg. Co., Valparaiso, Ind.
Diamond—Diamond Expansion Bolt Co., New York
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Economie—Economie Specialty Co., Boston, Mass.
Garrison-Heiland Corp., New York, N. Y. (Trade names—Beekman, Phillips.)
Lanz, M., Bolt Co., Pittsburgh, Pa.
Modern Mfg. Co., The, Cleveland, O.
Omega—Diamond Expansion Bolt Co., New York.
Paine—The Paine Co., Chicago, Ill.
Philadelphia—Steward & Romaine Mfg. Co., Philadelphia, Pa.
R-W—Richards-Wilcox Mfg. Co., Aurora, Ill.
Sebco—Star Expansion Bolt Co., New York, N. Y.
St. Louis Screw Co., St. Louis, Mo.
U. S. E.—United States Expansion Bolt Co., New York
Wrigley—Steward & Romaine Mfg. Co., Philadelphia
Wrigley's—The Thos. Wrigley Co., Chicago, Ill

BOLTS, TRACK.

American Bolt Co., Birmingham, Ala.
Ames, W., & Co., Jersey City, N. J.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Bourne-Fuller Co., The, Cleveland, O., and Unionville, Conn
Foster, L. B., Co., Pittsburgh, Pa.
Graham Bolt & Nut Co., Pittsburgh, Pa.
Illinois Steel Co., Chicago, Ill.
Inland Steel Co., Chicago, Ill.
Kansas City Bolt & Nut Co., Kansas City, Mo.
Lake Erie Iron Co., Cleveland, O.
Lamson & Sessions Co., The, Cleveland, O.
Lanz, M., Bolt Co., Pittsburgh, Pa.
Lebanon Iron Co., Philadelphia, Pa.
Milton Mfg. Co., The, Milton, Pa.
Moran Bolt & Nut Mfg. Co., St. Louis, Mo.
National Bolt & Nut Co., Pittsburgh, Pa.
Neely Nut & Bolt Co., Pittsburgh, Pa.
Oliver Iron & Steel Corp., Pittsburgh, Pa.
Scranton Bolt & Nut Co., Scranton, Pa.
St. Louis Screw Co., St. Louis, Mo.

BONDS, RAIL.

American Steel & Wire Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Ohio Brass Co., Mansfield, O.
Roebling's, J. A., Sons Co., Trenton, N. J.

BOOKS, METER READING.

Buffalo Meter Co., Buffalo, N. Y.

BOOSTERS, GAS AND AIR PRESSURE.

American Gas Furnace Co., Elizabeth, N. J.
Connersville Blower Co., Connersville, Ind.
Improved Appliance Co., Brooklyn, N. Y.
Leiman Bros., New York, N. Y.
Roots, P. H., & F. M., Co., Connersville, Ind.
Watson-Stillman Co., New York, N. Y.

BOOTS, ELEVATOR.

Caldwell, H. W., & Son Co., Chicago, Ill.
Chain Belt Co., Milwaukee, Wis.
Dodge Mfg. Corp., Mishawaka, Ind.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Link-Belt Company, Chicago and Philadelphia, Pa.
Nordyke & Marmon, Inc., Indianapolis, Ind.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Sykes Co., The, Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wolf Co., The, Chambersburg, Pa.

BOWLS, LADLE.

Columbiana Boiler Co., The, Columbiana, O.
Mullins Body Corporation, Salem, Ohio.

BOWLS, WATER CLOSET, ENAMELED IRON.

Crane Co., Chicago, Ill.
Ebco—D. A. Ebinger Sanitary Mfg. Co., Columbus, O.
I. X. L. Pump & Mfg. Co., Inc., Philadelphia, Pa.
Jones Hollow Ware Co., Baltimore, Md.
Kohler Co., Kohler, Wis.
Rundle Mfg. Co., Milwaukee, Wis.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Union Sanitary Works, Noblesville, Ind.
Wolff Mfg. Corp., Chicago, Ill.

BOWLS, WATER CLOSET, VITREOUS CHINA.

Abingdon Sanitary Mfg. Co., Abingdon, Ill.
Acme Sanitary Pottery Co., Trenton, N. J.
Amisson, J., & Sons Pottery Co., Bristol, Pa.
B. O. T. Mfg. Co., Trenton, N. J.
Bowers Pottery Co., Mannington, W. Va.
Cambridge Sanitary Mfg. Co., New Castle, Pa.
Camden Pottery Co., Camden, N. J.
Case, W. A., & Son Mfg. Co., Buffalo, N. Y.
Chicago Pottery Co., Chicago, Ill.
Cochrane-Drugan & Co., Trenton, N. J.
Colonial—Universal Sanitary Mfg. Co., New Castle, Pa.
Crane Co., Chicago, Ill.
Douglas, John, Co., Cincinnati, O.
Eljer Ford Co., Ford City, Pa.
Ford's Porcelain Works, Inc., Perth Amboy, N. J.
Healey Pottery Co., Trenton, N. J.
Horton Pottery Co., Chillicothe, O.
Indiana Sanitary Pottery Co., Hammond, Ind.
Ironsides Pottery Co., Bordentown, N. J.
Kalamazoo Sanitary Mfg. Co., Kalamazoo, Mich.
Keystone Pottery Co., Trenton, N. J.
Kokomo Sanitary Pottery Co., Kokomo, Ind.
Lambertville Pottery Co., Lambertville, N. J.
Maddock, John & Sons, Trenton, N. J.
Maddock's, Thos., Sons Co., Trenton, N. J.
Mott, J. L., Iron Works, Trenton, N. J.
National Sanitary Co, Salem, O.
New Kensington Sanitary Pottery, New Kensington, Pa.
Peerless Selling Co., Evansville, Ind.
Penn Pottery Co., Philadelphia, Pa.
Potomac Pottery Co., Keyser, W. Va.
Resolute Pottery Co., Trenton, N. J.
Rockport Sanitary Mfg. Co., Rockport, Ind.
Sanitary Earthenware Specialty Co., Trenton, N. J.
Sanitary Products Co., Perrysville, O.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Trenton Potteries Co., Trenton, N. J.
Union Sanitary Works, Noblesville, Ind.
Walworth Company, Boston, Mass.
West Coast Porcelain Mfrs., Millbrae, Cal.
Wheeling Sanitary Mfg. Co., Wheeling, W. Va.

BOX STRAPPING.

American Steel & Wire Co., Chicago, Ill.
Better Box Strapping—Consolidated Steel Strapping Co., Chicago, Ill.
De Haven Mfg. Co., Brooklyn, N. Y.
Grammes, L. F., & Sons, Allentown, Pa.
Roebling's, John A., Sons Co., Trenton, N. J.
Stanley Works, New Britain, Conn.
Universal—Cary Manufacturing Co., Brooklyn, N. Y.

BOXES, ANNEALING.

Blaw-Knox—Blaw-Knox Co., Pittsburgh, Pa.
Columbiana Boiler Co., The, Columbiana, Ohio
Garwood Bronze & Iron Works, Garwood, N. J.
Lancaster Iron Works, Inc., Lancaster, Pa.
Mesta—Mesta Machine Co., Pittsburg, Pa
Mullins Body Corp., Stamping Dept. A, Salem, O.
Ohio Mfg. Co., The, Painesville, O.
Petroleum Iron Works Co., The, Sharon, Pa.
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.
United Engineering & Foundry Co., Pittsburg, Pa
Vandergrift, Wilfong's Patent—Millard F. Wilfong Iron Works Co., Philadelphia, Pa.
Warren City Tank & Boiler Co., Warren, O.
Weldit—Weldit Acetylene Co., Detroit, Mich.

BOXES, BATTERY.

Mullins Body Corp., Stamping Dept. A, Salem, O.

BOXES (OR CONTAINERS), BIBB SCREWS.

Peerless Mfg. & Supply Co., New York, N. Y.

BOXES AND BOWLS FOR BRAZING.

Dixon Crucible Co., Joseph, Jersey City, N. J.

BOXES, CARBONIZING.

Garwood—Garwood Bronze & Iron Works, Garwood N. J.

BOXES, DRIP.

Alabama Pipe Co., Anniston, Ala.
American Foundry & Mfg. Co., St. Louis, Mo.
Casey-Hedges Co., Chattanooga, Tenn.
Clow, James B., & Sons, Chicago, Ill.
Glenn Mfg. Co., St. Charles, Ill.
Hammond Iron Co., Birmingham, Ala.
Saaco—Sanitary Company of America, Linfield, Pa.

BOXES, ECCENTRIC AND END THRUST.

Dodge Mfg. Corp., Mishawaka, Ind.
Medart Co., The, St. Louis, Mo.
Rockwood Mfg. Co., The, Indianapolis, Ind.

BOXES, FLOAT.

Davis—G. M. Davis Regulator Co., Chicago, Ill.

BOXES, GALVANIZING.

Munroe R., & Sons Mfg. Corp., Pittsburg, Pa.
Petroleum Iron Works Co., The, Sharon, Pa.
Warren City Tank & Boiler Co., Warren, O.
Wilfong, Millard F., Iron Works Co., Philadelphia, Pa.

BOXES, GARBAGE, CONCRETE.

Hercules—Chicago Granitine Mfg. Co., Chicago, Ill.
Wesely, Chas., Co., Chicago, Ill.

BOXES, GREASE, PLUMBERS'.

Always Reliable—Bernz Co., Otto, Newark, N. J.
Boekel, Wm., & Co., Philadelphia, Pa.
Wade Iron Sanitary Mfg. Co., Chicago, Ill.
Wolf Mfg. Corp., Chicago, Ill.
Woodward-Wanger Co., Philadelphia, Pa.

BOXES, HANGER, REPLACE.

Bond Foundry & Machine Co., Manheim, Pa.
Chicago Pulley & Shafting Co., Chicago, Ill.
Dodge Mfg. Corp., Mishawaka, Ind.
Fafnir Bearing Co., The, New Britain, Conn.
Royersford Foundry & Machine Co., Royersford, Pa.
Skayef Reeplace—S. K. F. Industries, Inc., New York, N. Y.
Wood-Fafnir—T. B. Wood Sons Co., Chambersburg, Pa. (ballbearing.)

BOXES AND BARRELS, HARD FIBRE, MILL AND FACTORY.

Armstrong Truck Co., North Wales, Pa.
Leatheroid—Rogers Fibre Co., Boston, Mass.
Standard Fibre Co., Somerville, Mass.
Vul-Cot—American Vulcanizing Fibre Co., Wilmington, Del.

BOXES, JOURNAL.

Brown, A. & F., Co., The, Elizabeth, N. J.
Caldwell, H. W., & Son Co., Chicago, Ill.
Falls Clutch & Machinery Co., Kent, Ohio.
Hanson Clutch & Machinery Co., Tiffin, O.
Link-Belt Co., Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
National Malleable & Steel Castings, Cleveland, O.
Royersford Foundry & Machine Co., Royersford, Pa.
St. Louis Malleable Casting Co., St. Louis, Mo.
Weller Mfg. Co., Chicago, Ill.
Wood, T. B., Sons Company, Chambersburg, Pa.

BOXES, METER.

Alabama Pipe Co., Anniston, Ala.
AFCO—Anniston Foundry Co., Anniston, Ala.
Aurora Steel Products Co., Aurora, Ill.
Buffalo Meter Co., Buffalo, N. Y.
Casey-Hedges Co., The, Chattanooga, Tenn.
Chicago—Illinois Malleable Iron Co., Chicago, Ill.
Clark, Southland—H. W. Clark Co., Mattoon, Ill.
Clarksville Foundry & Machine Wks., Clarksville Tenn.
Columbian—Columbian Iron Works, Chattanooga.
Crane Co., Chicago, Ill.
Ford Meter Box Co., Wabash, Ind.
Glenn Mfg. Co., St. Charles, Ill.
Hart & Hutchinson Co., New Britain, Conn.
Jersey—S. E. T. Valve & Hydrant Co., New York, N. Y.
Lynchburg Foundry Co., Lynchburg, Va.
Modern Iron Works, Quincy, Ill.
National—American Foundry & Mfg. Co., St. Louis.
Wolff Mfg. Corp., Chicago, Ill.

BOXES, MITRE.

Economy Mfg. Co., Philadelphia, Pa.
Emmert Mfg. Co., Waynesboro, Pa.
Gem—J. C. McCarty & Co., New York, N. Y.
Goodell—Braunsdorf-Mueller Co., Elizabeth, N. J
Goodell, Greenfield—Goodell-Pratt Co., Greenfield, Mass.
Jennings, C. E., & Co., New York, N. Y.
Langdon, Rogers, Star—Millers Falls Co., Millers Falls, Mass.
Olmsted's—L. H. Olmsted Mfg. Co., New York, N. Y.
Perfection—Union Hardware Co., Torrington, Conn.
Rockford Mitre Box Co., Rockford, Ill.
Seavey—Smith & Hemenway Co., Irvington, N. J.
Stanley Rule & Level Co., New Britain, Conn.
Stearns & Co., E. C., Syracuse, N. Y.

BOXES, MORTAR, STEEL.

General Wheelbarrow Company, Cleveland, Ohio. (formerly Akron Barrow Company).

BOXES, OILY WASTE.

(See "Cans, Oily Waste")

BOXES, ROADWAY.

Alabama Pipe Co., Anniston, Ala.
Casey-Hedges Co., The, Chattanooga, Tenn.
Clark, H. W., Co., Mattoon, Ill.
Columbian Iron Works, Chattanooga, Tenn.
Duplex Mfg. & Foundry Co., Elyria, O.
Glenn Mfg. Co., St. Charles, Ill.
Gulf States Pipe Corp., Anniston, Ala.
Hammond Iron Co., Birmingham, Ala.
Illinois Malleable Iron Co., Chicago, Ill.
Iowa Valve Co., Oskaloosa, Iowa.
Modern Iron Works, Quincy, Ill.
Mueller Co., Decatur, Ill.
National—American Foundry & Mfg. Co., St. Louis, Mo.
Phoenix—The Central Foundry Co., New York.
Richmond Foundry & Mfg. Co., Inc., Richmond, Va.
Sanitary Company of America, Linfield, Pa.
S. E. T. Valve & Hydrant Co., New York, N. Y.
Somerville Iron Works, Somerville, N. J.
Walworth Company, Boston, Mass.
Western Oil Pump & Tank Co., St. Louis, Mo. (gasoline.)
Wood, R. D., & Co., Philadelphia, Pa.

BOXES, SERVICE OR CURB.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
AFCO—Anniston Foundry Co., Anniston, Ala.
Alabama Pipe Co., Anniston, Ala.
American Foundry & Mfg. Co., St. Louis, Mo.
American Foundry & Pipe Co., Penn Station, Pa.
Aurora Steel Products Co., Aurora, Ill.
Beggs Pipe & Foundry Co., Birmingham, Ala.
Blake Specialty Co., Rock Island, Ill.
Buffalo Meter Co., Buffalo, N. Y.
C. M. B.—H. W. Clark Co., Mattoon, Ill.
Casey-Hedges Co., The, Chattanooga, Tenn.
Central Foundry Co., The, New York, N. Y.
Chapman's—J. B. Hauer, Inc., Brooklyn, N. Y.
Clow, James B., & Sons, Chicago, Ill.
Columbian Iron Works, Chattanooga, Tenn.
Divekey Bros. Mfg. Co., Aurora, Ill.
East Penn Foundry Co., Macungie, Pa.
Eastwood Wire Mfg. Co., Belleville, N. J.
Eclipse—John C. Kupferle Foundry Co., St. Louis, Mo.
Glenn Mfg. Co., St. Charles, Ill.
Gray Iron Foundry Co., Reading, Pa.
Guilderland Foundry Co., Guilderland, N. Y.
Gulf States Pipe Corp., Anniston, Ala.
Hammond Iron Co., Birmingham, Ala.
Hauer, J. B., Inc., Brooklyn, N. Y.
Hawkeye—Chandler Pump Co., Cedar Rapids, Iowa.
Hays Mfg. Co., Erie, Pa.
Humphryes Mfg. Co., The, Mansfield, O.
Illinois Malleable Iron Co., Chicago, Ill.
Indiana Foundry Co., Indiana, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Modern Iron Works, Quincy, Ill.
Mott, J. L., Iron Works, The, Trenton, N. J.
Mueller Co., Decatur, Ill.
No-Bolt—Sanitary Company of America, Linfield, Pa
North Star Foundry Co., Minneapolis, Minn.
Orient—Crane Co., Chicago, Ill.
Perfect—S. E. T. Valve & Hydrant Co., New York.
Phoenix—Central Foundry Co., New York, N. Y.
Reading Foundry & Supply Co., Reading, Pa.
Richmond Foundry & Mfg. Co., Richmond, Va.
Ricketts—Richter & Co., Cincinnati, O.
Saaco—Sanitary Company of America, Linfield, Pa.
Safety First—Murdock Mfg. & Supply Co., Cincinnati, O.
Taylor, W. P., Co., Buffalo, N. Y.
Wolff Mfg. Corp., Chicago, Ill.
Victoria Metal Co., Erie, Pa.

BOXES, SHOP OR TOTE.

All-Steel-Equip Co., Aurora, Ill.
Angle Steel Stool Co., Plainwell, Mich.
Aurora Steel Products Co., Aurora, Ill.
Canton Art Metal Co., Canton, Ohio.
Champion—Western Tool & Mfg. Co., Springfield, O.
Cleveland Wire Spring Co., The, Cleveland, O.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Estes, E. B., & Sons, New York, N. Y.
Globe Mach. & Stamping Co., Cleveland, O.

Hart & Hutchinson Co., The, New Britain, Conn.
Iron Horse—Rochester Can Co., Rochester, N. Y.
Kirk & Blum Mfg. Co., Cincinnati, O.
Lupton—David Lupton's Sons Co., Philadelphia, Pa.
Lyon—Lyon Metallic Mfg. Co., Aurora, Ill.
Mullins Body Corp., Stamping Dept. A, Salem, O.
New Britain Machine Co., New Britain, Conn.
Ohio Mfg. Co., The, Painesville, O.
Ot Steel—Angle Steel Stool Co., Plainwell, Mich.
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.
Terrell's Equipment Co., Grand Rapids, Mich.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.
Walters Mfg. Co., Pittsburgh, Pa.

BOXES, STEEL SHELF.

All- Steel-Equip. Co., Aurora, Ill.
Aurora Steel Products Co., Aurora, Ill.
Cleveland Wire Spring Co., Cleveland, O.
Heller, W. C., & Co., Montpelier, O.
Lyon—Lyon Metallic Mfg. Co., Aurora, Ill.
Meeco—Manufacturing Equipment & Engineering Co., Framingham, Mass.
Mullins Body Corp., Stamping Dept. A, Salem, O.
Western Tool & Mfg. Co., Springfield, O.

BOXES, STOCK, SEMI-STEEL.

Hadco—Haddon Bin Label Co., Haddon Heights, N. J.

BOXES, STREET WASHER.

Alabama Pipe Co., Anniston, Ala.
Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American Foundry & Mfg. Co., St. Louis, Mo. (Trade names—Buffalo, National.)
Casey-Hedges Co., Chattanooga, Tenn.
Clow & Sons, James B., Chicago, Ill.
Crescent—Goulds Mfg. Co., Seneca Falls, N. Y.
Fee & Mason Mfg. Co., New York, N. Y.
Glenn Mfg. Co., St. Charles, Ill.
Hajoca Corporation, Philadelphia, Pa.
Hauer, J. B., Inc., Brooklyn, N. Y.
Hays Mfg. Co., Erie, Pa.
Imico—Illinois Malleable Iron Co., Chicago, Ill.
Kupferle, John C., Foundry Co., St. Louis. (Trade names—California, Eclipse, McNamara.)
Indiana Foundry Co., Indiana, Pa.
Marcy Foundry Co., New York, N. Y.
Midland Brass Works, Inc., Fort Worth, Tex.
Mott, J. L., Iron Works, Trenton, N. J.
Mueller Co., Decatur, Ill.
Murdock Manufacturing & Supply Co., Cincinnati, O.
Nichol, Thos. J., & Co., Cincinnati, O.
Richmond Foundry & Mfg. Co., Inc., Richmond, Va.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Saaco—Sanitary Company of America, Linfield, Pa.
Salem Brass & Iron Mfg. Co., Bridgeton, N. J.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
S X—Essex Foundry, Newark, N. J.

BOXES, STUFFING.

Bros, Wm., Boiler & Mfg. Co., Minneapolis, Minn.
Buckeye Iron & Brass Works, Dayton, O.
Crane Co., Chicago, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Hill Clutch Co., The, Cleveland, O.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Midland Mfg. Co., Fort Worth, Tex. "Midland."
Norris, W. C., Tulsa, Okla. (oil well).
Wilcox, Crittenden & Co., Middletown, Conn.

BOXES, TAKE UP.

Brown, A. & F., Co., The, Elizabeth, N. J.
Caldwell, H. W., & Son Co., Chicago, Ill.
Dodge Mfg. Corp., Mishawaka, Ind.
Hanson Clutch & Machinery Co., Tiffin, O.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Jones—W. A. Jones Foundry & Machine Co., Chicago, Ill.
Link-Belt Company, Chicago and Philadelphia, Pa.
Medart Company, The, St. Louis, Mo.
Nordyke & Marmon Co., Indianapolis, Ind.
Palmerbee—Palmer-Bee Co., Detroit, Mich.
Rex—Chain Belt Co., Milwaukee, Wis.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Weller Mfg. Co., Chicago, Ill.
Wood, T. B., Sons Company, Chambersburg, Pa.

BOXES, TEST.

American Foundry & Mfg. Co., St. Louis, Mo.
Clow, James B., & Sons, Chicago, Ill.
Glenn Mfg. Co., St. Charles, Ill.
Saaco—Sanitary Company of America, Linfield, Pa.

BOXES, TIERING PLATFORM.

Powell—The Powell Pressed Steel Co., Hubbard, O.

BOXES, TOOL, ENGINEERS' KIT.

All-Steel-Equip Co., Aurora, Ill.
Johnson Mfg. Co., The, Urbana, O.
Mullins Body Corp., Stamping Dept. A, Salem, O.
Warner Implement Co., Hammond, Ind.

BOXES, TOOL, FIREPROOF.

All-Steel-Equip Co., Aurora, Ill.
Aurora Steel Products Co., Aurora, Ill.
Canton Art Metal Co., The, Canton, O.
Johnson Mfg. Co., Urbana, O.
Littleford Bros., Cincinnati, Ohio.
Lyon—Lyon Metallic Mfg. Co., Aurora, Ill.
Mullins Body Corp., Stamping Dept. A, Salem, O.
Union Tool Chest Co., Inc., Rochester, N. Y.
Vanderman's—The Vanderman Mfg. Co., Willimantic, Conn.
Western Tool & Mfg. Co., Springfield, O.

BOXES, VALVE.

Alabama Pipe Co., Anniston, Ala.
AFCO—Anniston Foundry Co., Anniston, Ala.
American Foundry & Pipe Co., Penn Station, Pa.
Boosey—Greenwood Mfg. Co., Detroit, Mich.
Bourbon—The Bourbon Copper & Brass Works, Cincinnati, O.
Casey-Hedges Co., The, Chattanooga, Tenn.
Central Foundry Co., New York, N. Y.
Clark—H. W. Clark Co., Mattoon, Ill.
Clow, James B., & Sons, Chicago, Ill.
Columbian Iron Works, Chattanooga, Tenn.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
East Penn Foundry Co., Macungie, Pa.
Eddy Valve Co., Waterford, N. Y.
Glenn Mfg. Co., St. Charles, Ill.
Gulf States Pipe Corp., Anniston, Ala.
Hammond Iron Co., Birmingham, Ala.
Illinois Malleable Iron Co., Chicago, Ill.
Iowa Valve Co., Oskaloosa, Ia.
Kennedy Valve Mfg. Co., Elmira, N. Y.
Lynchburg Foundry Co., Lynchburg, Va.
Mueller Co., Decatur, Ill.
National, Buffalo, National (Slip Pattern)—American Foundry & Mfg. Co., St. Louis, Mo.
Peerless, Quinn, See, Buffalo—Modern Iron Works, Quincy, Ill.
Phoenix—The Central Foundry Co., New York.
Reading Steel Casting Co., Inc., Bridgeport, Conn.
Rensselaer—Rensselaer Valve Co., Troy, N. Y.
Union Metal Works, Chelsea, Mass.
Walworth Company, Boston, Mass.
Waterous Fire Engine Works, St. Paul, Minn.
Wolff Mfg. Corp., Chicago, Ill.
Wood & Co., R. D., Philadelphia, Pa.

BOXES, VENT, CAST IRON.

B. & M. Vent Co., The, Philadelphia, Pa.
Casey-Hedges Co., The, Chattanooga, Tenn.
Hajoca Corporation, Philadelphia, Pa.
Jones Hollow Ware Co., Baltimore, Md.
Reading Foundry & Supply Co., Reading, Pa.
Salem Brass & Iron Mfg. Co., Bridgeton, N. J.
Saaco—Sanitary Company of America, Linfield, Pa.

BOXES, WALL VENTILATING.

American Radiator Co., New York, N. Y.
D. I.—Shipp, C. C., & Co., Indianapolis, Ind.
Kewanee Boiler Co., Kewanee, Ill.
Logan—Logansport Radiator Equipment Co., Logansport, Ind.
National Radiator Co., Johnstown, Pa.
O'Herron & Co., Terre Haute, Ind.
Triton—United States Radiator Corp., Detroit, Mich.

BRACES, BIT.

Atkins, E. C., & Co., Indianapolis, Ind.
Goodell-Pratt Co., Greenfield, Mass.
Irvington Mfg. Co., Irvington, N. J. (plain, ratchet, drill, angular, corner).
Mephisto—The W. A. Ives Mfg. Co., Wallingford, Conn.
Millers Falls Co., Millers Falls, Mass.
Peck, Stow & Wilcox Co., The, Southington, Conn.
Pioneer—The Southington Mfg. Co., Southington, Conn.
Stanley Rule & Level Co., New Britain, Conn.
Turner & Deegan, Bristol, Conn.
Vaughn & Bushnell Mfg. Co., Chicago, Ill.

BRACES, BIT, ANGULAR AND CORNER.

Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., Millers Falls, Mass.

BRACES, BIT, PUSH.

Yankee—North Bros. Mfg. Co., Philadelphia, Pa.

BRACES, BOILER.

Bros, Wm., Boiler & Mfg. Co., Minneapolis, Minn.
Housten—Lukens Steel Co., Coatesville, Pa.

BRACES, TRENCH AND TIMBER.

Alliance—Duff Mfg. Co., Pittsburgh, Pa.
Channon, James H., Mfg. Co., Chicago, Ill.
Dune—Duff Mfg. Co., Pittsburgh, Pa.
Kalamazoo Foundry & Machine Co., Kalamazoo, Mich.

Martin—Martin, Fort Wayne, Ind.
Richardson & Tallman, Shelbyville, Ill.
Safety Extensible—Waldo Bros. & Bond Co., Boston, Mass.
Templeton, Kenley & Co., Chicago, Ill. "Simplex."

BRACKETS, CLOSET TANK.

American Foundry & Mfg. Co., St. Louis, Mo.
American Pin Co., Waterbury, Conn.
Beneke Mfg. Co., Chicago, Ill.
Brey & Krause Mfg. Co., Allentown, Pa.
Crane Co., Chicago, Ill.
Federal-Huber Co., Chicago, Ill.
Griffin Mfg. Co., The, Erie, Pa.
Jones Hollow Ware Co., Baltimore, Md.
J. R. S. Specialties Mfg. Co., Inc., The, New York, N. Y.
Reading Foundry & Supply Co., Reading, Pa.
Richmond Fdy. & Mfg. Co., Richmond, Va.
Riverside Foundry & Galvanizing Co., Kalamazoo, Mich.
Shwab Bros. Co., New York, N. Y.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Street & Kent Mfg. Co., Chicago, Ill.
Union Metal Works, Inc., Chelsea, Mass.
Walworth Company, Boston, Mass.
Washington Iron Works, Los Angeles, Cal.

BRACKETS, EXPANSION TANK.

American Foundry & Mfg. Co., St. Louis, Mo.
Bignall Co., Medina, N. Y.
Capitol—U. S. Radiator Corp., Detroit, Mich.
Chicago Nipple Mfg. Co., Chicago, Ill.
Crane Co., Chicago, Ill.
J. R. S. Specialties Mfg. Co., Inc., The, New York, N. Y. (Trade names—J. R. S., Sure Grip.)
Quickset—F. A. Tyler, Albany, N. Y.
Reading Foundry & Supply Co., Reading, Pa.
Saaco—Sanitary Company of America, Linfield, Pa.

BRACKETS, FIRE EXTINGUISHER PUMP AND FIRE BUCKET.

Diener, Geo. W., Mfg. Co., Chicago, Ill.

BRACKETS, FIRE AXE.

Diener, Geo. W., Mfg. Co., Chicago, Ill.

BRACKETS, FOOT AND HAND RAIL.

American Fdy. & Mfg. Co., St. Louis, Mo.
Brey & Krause Mfg. Co., Allentown, Pa.
Columbus Brass Co., Columbus, O.
Glenn Mfg. Co., St. Charles, Ill.
Hajoca Corporation, Philadelphia, Pa.
Lehnert & Co., New York, N. Y.
Newbury, Jay H., & Son, Goshen, N. Y.
Newman Mfg. Co., The, Cincinnati, O.
Perkes, Chas., Co., Philadelphia, Pa.
Russell & Irwin Mfg. Co., New York, N. Y.
Zero Valve & Brass Corp., Buffalo, N. Y.

BRACKETS, LAMP, FOR LATHES.

Searchlight—McCrosky Tool Corp., Meadville, Pa.

BRACKETS, LAVATORY, BRASS.

American Foundry & Mfg. Co., St. Louis, Mo.
Ampinco—American Pin Co.,Waterbury, Conn.
Atlas Mfg. Co., New Haven, Conn.
Clow & Sons, James B., Chicago, Ill.
Columbus Brass Co., Columbus, O.
Crane Co., Chicago, Ill.
Dearborn Brass Co., Cedar Rapids, Ia.
Dent Hardware Co., Bangor, Pa.
Edwardsville Brass Co., Edwardsville, Ill.
Elkay Mfg. Co., Chicago, Ill.
Federal-Huber Co., Chicago, Ill.
Griffin Mfg. Co., Erie, Pa.
Humphryes Mfg. Co., The, Mansfield, O.
Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Kupferle, John C., Foundry Co., St. Louis, Mo.
Newman Mfg. Co., The, Cincinnati, O.
Parker, Chas., Co., The, Meriden, Conn.
Peck Bros., & Co., New Haven, Conn.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Star—U. T. Hungerford Brass & Copper Co., New York, N. Y.
Street & Kent Mfg. Co., Chicago, Ill.
Wiseco—J. B. Wise, Inc., Watertown, N. Y.
Wolff Mfg. Corp., Chicago, Ill.

BRACKETS OR HANGERS, LAVATORY, CAST IRON.

Alabama Pipe Co., Anniston, Ala.
American Brass & Copper Co., The, New York, N. Y.
American Foundry & Mfg. Co., St. Louis, Mo.
Barber Mfg. Co., The, Ashtabula, O.
Columbia Mfg. Co., Louisville, Ky.
Crane Co., Chicago, Ill.
Dececo Co., Boston, Mass.
East Penn Foundry Co., Macungie, Pa.
Douglas, John, Co., The, Cincinnati, O.
Glenn Mfg. Co., St. Charles, Ill.
Humphryes Mfg. Co., The, Mansfield, O.
Jones Hollow Ware Co., Baltimore, Md.
Kupferle Foundry Co., John C., St. Louis, Mo.
Modern Iron Works, Quincy, Ill.
Reading Foundry & Supply Co., Reading, Pa.
Richmond Radiator Co., Inc., New York, N. Y.
Riverside Foundry & Galvanizing Co., Kalamazoo, Mich.
Salem Brass & Iron Mfg. Co., Bridgeton, N. J.
Sargent & Co., New Haven, Conn.
Weiskittel, A., & Son Co., Baltimore, Md.
Wolff Mfg. Corp., Chicago, Ill.

BRACKETS AND SUPPORTS, PIPE.

Crane Co., Chicago, Ill.
Fee & Mason Mfg. Co., New York, N. Y.
G. G.—Geo. Gross & Son, Brooklyn, N. Y.
Glenn Mfg. Co., St. Charles, Ill.
Modern Iron Works, Quincy, Ill.
National Tube Co., Pittsburgh, Pa.
Simmons Co., John, New York, N. Y.
Tyler—R. W. Sharon Co., Pittsburgh, Pa.
Walworth Company, Boston, Mass.

BRACKETS, RADIATOR.

Clip-Bar—Clip-Bar Mfg. Co., Philadelphia, Pa.
Gleockle, A. F., Jr., Rochester, N. Y.
Hartmann, Charles, Co., Brooklyn, N. Y.
J. R. S. Specialties Mfg. Co., Inc., The, New York,
Smith, H. B., Co., The, Westfield, Mass.
Triton—U. S. Radiator Corp., Detroit, Mich.

BRACKETS, RANGE BOILER.

(See "Stands, Range Boiler.")

BRACKETS, SCAFFOLDING.

Longlife—Plymouth Metal Products Co., Plymouth, Wis.
Neville—Neville Mfg. Co., Kewanee, Ill.
Reliable—Elite Mfg. Co., Ashland, O.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Steel Scaffolding Co., Evansville, Ind.
Weber Mfg. Co., West Allis, Wis.

BRACKETS, SHELF.

Brey & Krause Mfg. Co., Allentown, Pa.
Peck, Stow & Wilcox Co., Southington, Conn.
Quickset—F. A. Tyler, Albany, N. Y.
Russell, John M., Mfg. Co., Naugatuck, Conn.
Sani-Metal—Sani-Products Co., Chicago, Ill.
Stanley Works, New Britain, Conn.

BRACKETS, SINK AND DRAINBOARD.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Alabama Pipe Co., Anniston, Ala.
American Foundry & Mfg. Co., St. Louis, Mo.
American Pin Co., Waterbury, Conn.
American Scale Co., Kansas City, Mo.
Ashtabula—The Barber Mfg. Co., Ashtabula, O.
Barnes Mfg. Co., The, Mansfield, O.
Bignall Co., The, Medina, N. Y.
B. & F. Mfg. Co., Inc., Indianapolis, Ind.
Blue Ribbon—Chicago Nipple Mfg. Co., Chicago, Ill.
Casey-Hedges Co., The, Chattanooga, Tenn.
Clarksville Foundry & Machine Co., Clarksville, Tenn.
Clow, James B., & Sons, Chicago, Ill.
Columbia Sanitary Mfg. Co., Louisville, Ky.
Crane Co., Chicago, Ill.
Dempster Mill Mfg. Co., Beatrice, Neb.
Divekey Bros. Mfg. Co., Aurora, Ill.
Eclipse—John C. Kupferle Foundry Co., St. Louis, Mo.
Eclipse—Stanley G. Flagg & Co., Philadelphia, Pa.
Federal-Huber Co., Chicago, Ill.
Glenn Mfg. Co., St. Charles, Ill.
Gray Iron Foundry Co., Reading, Pa.
Griffin Mfg. Co., The, Erie, Pa.
Guilderland Foundry Co., Guilderland, N. Y.
Hajoca Corporation, Philadelphia, Pa.
Hammond Iron Co., Birmingham, Ala.
Humphryes Mfg Co., The, Mansfield, O.
Iron City Sanitary Mfg. Co., Pittsburgh, Pa.
Jones Hollow Ware Co., Baltimore, Md.
J. R. S. Specialties Mfg. Co., Inc., The, New York, N. Y.
Korff Mfg. Co., Lansing, Mich.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Milford Iron Foundry, Milford, Mass.
M. I. W.—Modern Iron Works, Quincy, Ill.
Mott, J. L., Iron Works, The, Trenton, N. J.
Nu Idea Stand Co., Kokomo, Ind.
Olyphant Foundry Co., Olyphant, Pa.
Phoenix Hardware Mfg. Co., Buffalo, N. Y.
Reading Foundry & Supply Co., Reading, Pa.
Richmond Fdy. & Mfg. Co., Inc., Richmond, Va.
Riverside Foundry & Galvanizing Co., Kalamazoo, Mich.
Rundle Mfg. Co., Milwaukee, Wis.
Saaco—Sanitary Company of America, Linfield, Pa.
Salem Brass & Iron Mfg. Co., Bridgeton, N. J.
Sanitary—Jordan & Steele Mfg. Co., The, Charlotte, Mich.
Saxon—J. D. Johnson Co., Philadelphia, Pa.

Standard Foundry Co., Anniston, Ala.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Swett, A. L., Iron Works, Medina, N. Y.
Treaty Co., The, Greenville, O.
Vollrath Co., The, Sheboygan, Wis.
Wessels, D. D., & Son, Detroit, Mich.
Wiseco—J. B. Wise, Inc., Watertown, N. Y.
Wolff, L., Mfg. Corp., Chicago, Ill.
Wolverine Foundry Co., Detroit, Mich.

BRACKETS, SINK, ADJUSTABLE.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Alabama Pipe Co., Anniston, Ala.
American Foundry & Mfg. Co., St. Louis, Mo.
Boston—Joseph H. Young Co., Boston, Mass.
Dent Hardware Co., Bangor, Pa.
Diamond—A. Y. McDonald Mfg. Co. Dubuque, Ia.
Eafco—Eastern Foundry Co., Boyertown, Pa.
Federal-Huber Co., Chicago, Ill.
Humphryes Mfg. Co., The, Mansfield, O.
Wesely, Chas., Co., Chicago, Ill.

BRACKETS, SINK PUMP.

American Foundry & Mfg. Co., St. Louis, Mo.
Barnes Mfg. Co., The, Mansfield, O.
Coleman, Allan J., Chicago, Ill.
Deming Co., Salem, O.
Diamond—A. Y. McDonald Mfg. Co., Dubuque, Iowa.
Jordan & Steele Mfg. Co., Charlotte, Mich.

BRACKETS, WALL, POWER TRANSMISSION.

Bond Foundry & Machine Co., Manheim, Pa.
Brown, A. & F., Co., The, Elizabeth, N. J.
Caldwell, H. W., & Son Co., Chicago, Ill.
Chicago Pulley & Shafting Co., Chicago, Ill.
Dodge Mfg. Corp., Mishawaka, Ind.
Hanson Clutch & Machinery Co., Tiffin, O.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jeffrey Mfg. Co., Columbus, O.
Jones—W. A. Jones Foundry & Machine Co., Chicago, Ill.
Link-Belt Company, Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
Naylor Bros., Peekskill, N. Y.
Overway—Richards-Wilcox Mfg. Co., Aurora, Ill.
Pioneer—Standard Pressed Steel Co., Jenkintown, Pa.
Royersford Foundry & Machine Co., Royersford, Pa.
Webster Mfg. Co., Chicago, Ill.
Wood, T. B., Sons Company, Chambersburg, Pa.

BRAKES, FACTORY TRUCK.

Safety—Safety Truck Brake Co., Appleton, Wis.
Zering, H., Mfg. Co., The, Cincinnati, O.

BRASS FINISHERS' LATHES.

(See also "Lathes, Brass Finishers'.")
American Tool & Machine Co., Boston, Mass.

BRASS RODS, BARS AND SHEETS.

Anaconda—American Brass Co., The, Waterbury, Conn.
Baltimore Tube Co., Baltimore, Md.
Bristol Brass Corp., The, Bristol, Conn.
Chase Metal Works, Waterbury, Conn.
Clendenin Bros., Inc., Baltimore, Md.
Cleveland Brass & Copper Mills, Inc., Euclid, O.
Connecticut Brass & Mfg. Corp., Waterbury, Conn.
Dallas Brass & Copper Co., Chicago, Ill.
Detroit Copper & Brass Rolling Mills, Detroit.
Eagle Brand—Taunton-New Bedford Copper Co., Taunton, Mass.
Eagle Smelting & Refining Works, New York, N. Y.
Gilbert, A., & Sons, Brass Foundry Co., St. Louis Mo.
Ledrite (brass rod)—Bridgeport Brass Corp., Bridgeport, Conn. (also sheets, etc.)
Mueller Brass Co., Port Huron, Mich.
National Conduit & Cable Co., Inc., Hastings-on-Hudson, N. Y.
North American Copper Co., New York, N. Y.
Randolph-Clowes Co., The, Waterbury, Conn.
Red Tip—Mueller Metals Co., Port Huron, Mich.
Riverside Metal Co., Riverside, N. J
Rome Brass & Copper Co., Rome, N. Y.
Seymour Mfg. Co., The, Seymour, Conn.
Snow—The Plume & Atwood Mfg. Co., Waterbury, Conn.
Stamford Rolling Mills Co., New York.
Star—U. T. Hungerford Brass & Copper Co., New York, N. Y.
Waterbury Rolling Mills, Inc., Waterbury, Conn.
Wolverine—The Michigan Copper & Brass Co., Detroit, Mich.

BRASSES, MILL, CAR AND ENGINE.

Johnson Bronze Co., New Castle, Pa.
More-Jones Brass & Metal Co., St. Louis, Mo.

BRAZING OUTFITS.

Atkins, E. C., & Co., Indianapolis, Ind.
Edge, Frank, & Co., Grand Rapids, Mich. (saw).
Improved Appliance Co., Brooklyn, N. Y.
Rego, Torit—The Bastian-Blessing Co., Chicago, Ill.
Smith Welding Equipment Corp., Minneapolis, Minn.
Vulcan Brazer—Black Diamond Saw & Machine Wks., Natick, Mass.

BREAKERS, PAVEMENT.

Cleveland Rock Drill Co., The, Cleveland, Ohio.

BREECHINGS, BOILER.

Bros—Wm. Bros Boiler & Mfg. Co., Minneapolis, Minn.
Codd, E. J., Co., Baltimore, Md.
Haines Co., The, Chicago, Ill.
Heine Boiler Co., St. Louis, Mo.
Lancaster Iron Works, Inc., Lancaster, Pa.
Littleford Bros., Cincinnati, O.
New York Central Iron Works Co., Hagerstown, Md.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Petroleum Iron Works Co., Sharon, Pa.
Stover Steel Tank Co., Freeport, Ill.
Treadwell, M. H., Co., Inc., New York, N. Y.

BRICKS AND STICKS, ABRASIVE.

Alundum, Crystolon—Norton Co., Worcester, Mass.
American Emery Wheel Works, Providence, R. I.
Borolon, Electrolon—Abrasive Company, Philadelphia, Pa.
Carborundum Co., The, Niagara Falls, N. Y.
Chicago Wheel & Mfg. Co., Chicago, Ill.
Eagle Emery & Corundum Wheel Co., Chicago, Ill.
Pittsburgh Grinding Wheel Co., Rochester, Pa.
Star Corundum Wheel Co., Detroit, Mich.
Stiles, H. A., & Co., Boston, Mass.
Vitrified Wheel Co., Westfield, Mass.

BROACHES.

(See also "Machines, Broaches.")
Hollander—Hollander-Westman Tool Co., Arlington, N. J.

BRONZE BARS, CORED AND SOLID.

(See "Bars, Bronze, Cored and Solid.")

BRONZE, ALUMINUM, MANGANESE AND PHOSPHOR.

Ajax—The Ajax Metal Co., Philadelphia, Pa.
Anaconda—The American Brass Co., Waterbury, Conn.
Anchor—Federated Metals Corp., Chicago, Ill.
Bear—Standard Brass Casting Co., Oakland, Cal.
Bethlehem Steel Co., Bethlehem, Pa.
Copperbrite, Goldbrite, Silverbrite—Burton H. Rath, Philadelphia, Pa.
Cosmos, Stannum—Lumen Bearing Co., Buffalo, N. Y.
Crescent—Crescent Phosphorized Metal Co., The, Philadelphia.
Cypress—Brady Brass Co., Jersey City, N. J.
Detroit Metal Refining Co., Detroit, Mich.
Eagle Brand—Taunton-New Bedford Copper Co., Taunton, Mass.
Elephant—The Phosphor Bronze Smelting Co., Philadelphia, Pa.
Fries & Co., Buffalo, N. Y.
Gilbert's Kosmos—A. Gilbert & Sons Brass Foundry Co., St. Louis, Mo.
Illinois Smelting & Refining Co., Chicago, Ill.
North American Copper Co., New York, N. Y.
Omega—Riverside Metal Co., Riverside, N. J.
Perkins Co., H. K., The, Taunton, Mass.
Reeves & Co., Paul S., Philadelphia, Pa. (Rod, sheet, wire.)
Seymour Mfg. Co., The, Seymour, Conn.
Sherwood Brass Works, Detroit, Mich.

BRONZE, "LADLE."

Monarch Metal Co., Chicago, Ill. "Quaker Metal."

BRONZE RODS, BARS AND SHEETS.

Anaconda—American Brass Co., The, Waterbury Conn.
Aztec, Crown, Bridgeport—Bridgeport Brass Co., Bridgeport, Conn.
Baltimore Tube Co., Baltimore, Md.
Chase Metal Works, Waterbury, Conn.
Cleveland Brass & Copper Mills, Inc., Euclid, O.
Connecticut Brass & Mfg. Corp., Waterbury, Conn.
Dallas Brass & Copper Co., Chicago, Ill.
Detroit Copper & Brass Rolling Mills, Detroit, Mich.
Eagle Brand—Taunton-New Bedford Copper Co., Taunton, Mass.
Elephant—The Phosphor Bronze Smelting Co., Philadelphia, Pa.
Gilbert, A., & Sons, Brass Foundry Co., St. Louis, Mo.
Helmet—Chas. H. Besly & Co., Chicago, Ill. (sheet only).

Johnson Bronze Co., Newcastle, Pa.
New Era—New Era Mfg. Co., Kalamazoo, Mich.
Plume & Atwood Mfg. Co., The, Waterbury, Conn.
Randolph-Clowes Co., The, Waterbury, Conn.
Riverside Metal Co., Riverside, N. J.
Seymour—The Seymour Mfg. Co., Seymour, Conn.
Stamford Rolling Mills Co., New York.
Star—U. T. Hungerford Brass & Copper Co., New York, N. Y.
Sumet Corporation, Buffalo, N. Y. "Sumet."
William "G"—E. A. Williams & Son, Inc., Jersey City, N. J.
Wolverine—The Michigan Copper & Brass Co., Detroit, Mich.

BROOMS AND BRUSHES, FACTORY.

Brown Broom Mfg. Co., Boston, Mass.
Capital—Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Edlund—Osborn Mfg. Co., Cleveland, O.
Felton & Son Co., S. A., Manchester, N. H.
Hamburg Broom Works, Hamburg, Pa. (Trade names—Acme, Pavonia, Peerless, Puritan, Our Best, Eclipse, Uncle Tom.)
Hartford Products Co., Hartford, Conn.
Kendallville, King Bee—Kendallville Broom & Brush Co., Kendallville, Ind.
Lay, Joseph, Co., Portland, Ind. (Trade names—Lay, Victor.)
Long Island Broom Co., Laurel Hill, N. Y
Manufacturers Brush Co., Cleveland, O.
Merkle Broom Co., Paris, Ill.
Mid-West Broom Mfg. Co., Circleville, O.
Milwaukee Brush Manufacturing Co., Milwaukee, Wis.
National Brush & Broom Co., Ridgeville, Ind.
Obermayer Co., The S., Cincinnati, O.
Paxson Co., J. W., Philadelphia, Pa.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pollock Brush Co., Easton, Pa. (bass and bamboo).
Red Star—Tolman Brushes, Inc., Chicago, Ill.
Refilit—Refilit Broom Mfg. Co., Boston, Mass.
Southwestern Iron Clad—The Southwestern Broom Mfg. Co., Evansville, Ind.
Specialty Mfg. Co., The, Cleveland, O.
Suffern Broom Co., Springfield, Ill.
Torrington Brush Works, The, Torrington, Conn.
Warner, W. E., & Co., New York, N. Y.
Whiting, John L., and J. J. Adams Co., Boston, Mass.
Worcester Brush & Scraper Co., Worcester, Mass. (Trade names—Re-mov-all, Red Devil, Giant.)

BROOMS, MUNICIPAL.

Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Victor—Joseph Lay Co., Portland, Ind.

BROOMS, RAILROAD SWITCH.

Capital—Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Kendallville, King Bee—Kendallville Broom & Brush Co., Kendallville, Ind.
Lay, Joseph, Co., Portland, Ind.
National Brush & Broom Co., Ridgeville, Ind.
Newark Brush & Scraper Co., Newark, N. J.
Osborn—Osborn Mfg. Co., The, Cleveland, O.
Pilley—Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Specialty Mfg. Co., The, Cleveland, O.
Worcester Rotary—Worcester Brush & Scraper Co., Worcester, Mass.

BROOMS, WIRE.

Browne, F. W., Co., Farmington, N. H.
Capital—Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Cyclonic (adjustable)—Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Lay, Joseph, Co., Portland, Ind.
Milwaukee Brush Mfg. Co., The, Milwaukee, Wis.
Newark Brush & Scraper Co., Newark, N. J.
Osborn Mfg. Co., Cleveland, O.
Pilley—Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo. (Garage, smelter, stable and track).
Royal Worcester—Worcester Brush & Scraper Co., Worcester, Mass. (Trade names—Ranger Fire Push, Royal Worcester.)
Specialty Mfg. Co., The, Cleveland, O.

BRUSHES, BATH.

Bell, Andrew, Estate of, Newark, N. J.
Canfield, H. O., Co., Bridgeport, Conn.
Knickerbocker Mfg. Co., Chicago, Ill.
Nichols—The Liberty Mfg. Co., East Norwalk, Conn.
Osborn Mfg. Co., Cleveland, O.
Quaker City Rubber Co., Philadelphia, Pa.
Smith, E. C., Mfg. Co., Chicago, Ill.
Torrington Brush Works, The, Torrington, Conn.
Warner, W. E., & Co., New York, N. Y.

BRUSHES, BENCH.

Capital—Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Laco—A. Laitner & Sons, Detroit, Mich.
Lay, Joseph, Co., Portland, Ind.
Milwaukee Brush Manufacturing Co., Milwaukee, Wis.
Osborn Mfg. Co., Cleveland, O.
Pollock Brush Co., Easton, Pa.
Specialty Mfg. Co., The, Cleveland, O. "Even Trim."
Torrington Brush Works, The, Torrington, Conn.

BRUSHES, BUFFING.

Newark Brush & Scraper Co., Newark, N. J.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Torrington Brush Works, The, Torrington, Conn.

BRUSHES, CASTING.

Bracket, Bridled—Newark Brush & Scraper Co., Newark, N. J.
Browne, F. W., Co., Farmington, N. H. (wire).
Hill & Griffith Co., Cincinnati, O.
Milwaukee Brush Mfg. Co., Milwaukee, Wis.
Obermayer & Co., S., Cincinnati, O.
Osborn—The Osborn Mfg. Co., Inc., Cleveland, O.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Safco—S. A. Felton & Son Co., Manchester, N. H.
Shanafelt Mfg. Co., Canton, O.
Specialty Mfg. Co., The, Cleveland, O. "Perfect Balance."
Torrington Brush Works, The, Torrington, Conn.
Victor—Joseph Lay Co., Portland, Ind.
Warner, W. E., & Co., New York, N. Y.

BRUSHES, CLOSET BOWL.

Milwaukee Brush Mfg. Co., Milwaukee, Wis.
Osborn Mfg. Co., Cleveland, O.
Pollock Brush Co., Easton, Pa.
Warner, W. E., & Co., New York, N. Y.

BRUSHES, DYNAMO AND MOTOR.

American Carbon & Battery Works, East St. Louis, Ill.
Cutler-Hammer Mfg. Co., Milwaukee, Wis.
General Electric Co., Schenectady, N. Y.
Graphitoleo—Dixon Crucible Co., Joseph, Jersey City, N. J.
Imperial—The Martindale Electric Co., Cleveland, O.
Le Valley Vitae—Le Valley Vitae Carbon Brush Co., New York, N. Y.
Speer—Speer Carbon Co., St. Marys, Pa.
Union Carbide & Carbon Corp., New York, N. Y.
United States Graphite Co., Saginaw, Mich.
Worcester Rotary—Worcester Brush & Scraper Co., Worcester, Mass.

BRUSHES AND CARDS, FILE CLEANING.

Delta File Works, Philadelphia, Pa.
Newark—Newark Brush & Scraper Co., Newark, N. J.
Nicholson File Co., Providence, R. I.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Tragle Mfg. Co., Inc., Reading, Pa.

BRUSHES, FLUE, FURNACE AND HEATER.

Abbott Wire Brush Co., Boston, Mass.
Abram, Spiral Coil—Newark Brush & Scraper Co., Newark, N. J.
Browne, F. W., Co., Farmington, N. H.
Felco—S. A. Felton & Son Co., Manchester, N. H.
Flint, Warren F., Co., Boston, Mass.
Freeman—Newark Brush & Scraper Co., Newark, N. J
Milwaukee Brush Mfg. Co., Milwaukee, Wis.
Osborn—The Osborn Mfg. Co., Inc., Cleveland, O
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Re-Mov-All—Worcester Brush & Scraper Co., Worcester, Mass.
Specialty Mfg. Co., The, Cleveland, O.

BRUSHES, GLUE, FIBRE.

Shanafelt Mfg. Co., Canton, O.

BRUSHES, HOSE CLEANING.

Osborn, The, Mfg. Co., Inc., Cleveland, O.

BRUSHES, JOINT WIPING, PLUMBERS'.

Osborn Mfg. Co., Inc., Cleveland, O.

BRUSHES, LOOM AND COMBER.

Torrington Brush Works, The, Torrington, Conn.

Newark Brushes and Scrapers

NEWARK Brushes and Scrapers have been popular with engineers and other users since John Collicott established the line in 1876. We use only first class materials and guarantee workmanship. By continually adding to our line, we are now making brushes and scrapers that cover most uses. Ask for catalogue showing the full line. A few of our best sellers are shown below.

COLLICOTT'S IMPROVED INGALLS' SCRAPER No. 8 (Plain)

This type of scraper has proved its worth by its popularity and is one of the best known types of scraper manufactured in this country. The scraper is self-adjustable, conforming itself to the inside of the tube and expanding as the tube is cleaned. Sizes from 1½ to 6 inches.

Price.....$1.00 per diameter inch

ENGINEERS' FAVORITE COMBINATION SCRAPER No. 2B

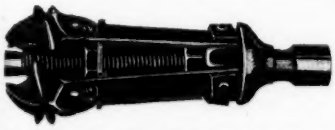
This scraper is a combination of the Engineers' Favorite and the Abrams type wire brush. The scraper removes the scale from the tube and the brush follows, cleaning up the dust and loose scale and leaving the tube in perfect condition.

Price.....$1.25 per diameter inch

ENGINEERS' FAVORITE SCRAPER No. 2

This scraper is made of malleable iron and steel throughout. The cutting edges can be expanded or contracted by holding the scraper and turning the center rod. Made in sizes from 1½ to 4½ inches inclusive.

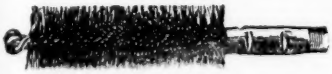
Price.....$1.00 per diameter inch



SINGLE-END ENGINEERS' FAVORITE SCRAPER No. 2A

The single-end Engineers' Favorite is the type that has been adopted by the United States Navy Department wherever a scraper for cleaning tubes has been required. Thousands of these were made during the war and proved their worth. Sizes from 1½ to 4½ inches.

Price.....$1.00 per diameter inch



NEWARK FLUE BRUSH No. 5 (Fine Spiral)

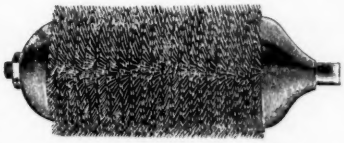
Made of round tempered steel wire thoroughly twisted in center spindle. This is a double filled brush, making the bristles more secure and adding to the length of service. Sizes 1 to 6 inches.

Price.....$1.00 per diameter inch

COLLICOTT'S IMPROVED INGALLS' COMBINATION No. 9

The combination Ingalls' scraper has the advantage of being two tools in one, the scraper part being identical with our No. 8 and the brush being of the Abrams type. The scraping edges remove the soot and scale while the brush cleans out what is scraped off, thus leaving tubes very clean. Brush can be renewed.

Price.....$1.25 per diameter inch



ABRAM'S FLUE BRUSH No. 3

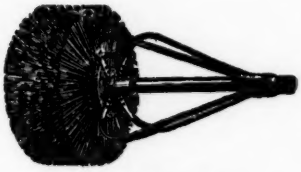
Made of flat spring steel wire on solid rod—not pipe. Suitable for marine and stationary boilers. An exceptionally strong brush for hard service. While this is a more expensive brush than the common spiral type, it will give better service and has the great advantage that it can be twisted in any direction and abused in every way and the bristles will absolutely not fall out. The brush is also protected on each end by an iron flange. This brush is good until worn out. Sizes 1½ to 10 inches. Abrams' type can be made with a combination of both hard and fine wire at small additional cost.

Price.....$1.00 per diameter inch

HARD SPIRAL FLUE BRUSH No. 4

Made of flat tempered steel wire thoroughly twisted. An excellent brush considering the low price and sold in large quantities. Sizes 1 to 6 inches.

Price.....$1.00 per diameter inch



LARGE FLUE BRUSH

Nos. 10 and 10A

This is made of flat tempered steel wire with steel protected end, in sizes from 8 inches and larger. No. 10 plain hub and No. 10A iron covered hub.

Price.....$1.00 per diameter inch

NEWARK GAUGE CLASS CUTTER No. 1

This cutter we guarantee in workmanship and material and will cut as thoroughly as any high priced cutter. It is made of spring steel, nickel plated, with stub steel pin and Jessup steel cutting wheel.

List Price, $4.50 per dozen, ½ gross lots, $4.00.

NEWARK FILE CLEANING CARD No. 27 (Plain)

Length over all 8½ inches. Brush part 4½ inches. Plain maple handle.
List Price.....$30.00 per gross

PLATERS' BENT HANDLE FINE WIRE SCRATCH BRUSH No. 13

Especially adapted for cleaning architectural iron work. Also used as a brazier's cleaning brush. Four rows of fine round wire, 1½ inches long.
Price.....$12.00 per dozen

Also Furnace Brushes, Condenser Tube Brushes, Flexible Handle Brushes, Casting Brushes, Scratch Brushes, Butchers' Block Brushes, Painters' Brushes, Switch Brooms, etc.

Ask for Catalogue No. 7
and Discount Sheet

Established 1876

Newark Brush & Scraper Company

264 and 266 Fabyan Place

Newark, N. J.

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Capital—Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Felton & Son Co., S. A., Manchester, N. H.
Foundry Bracket—Newark Brush & Scraper Co., Newark, N. J.
Haisler Bros. Co., Chicago, Ill.
Hill & Griffith Co., The, Cincinnati, O.
Milwaukee Brush Mfg. Co., Milwaukee, Wis.
Mulholland, Wm., New York, N. Y.
Optimus, Acme—A. P. Munning & Co., Matawan, N. J.
Obermayer Co., The S., Cincinnati, O.
Osborn—The Osborn Mfg. Co., Inc., Cleveland, O.
Specialty Mfg. Co., The, Cleveland, O. "Perfect Balance."
Turner, J. S., Mfg. Co., Lowell, Mass.
Victor—Joseph Lay Co., Portland, Ind.
Warner, W. E., & Co., New York, N. Y.

BRUSHES, MOULDERS.

Shanafelt Mfg. Co., The, Canton, O.
Torrington Brush Works, The, Torrington, Conn.

BRUSHES, PAINT.

Gerts-Lumbard & Co., Chicago, Ill.
Specialty Mfg. Co., The, Cleveland, O. "Even Trim."
Whiting-Adams—John L. Whiting-J. J. Adams Co., Boston, Mass.

BRUSHES, RADIATOR.

King Mfg. Co., Arlington, N. J.
Osborn Mfg. Co., Inc., Cleveland, Ohio.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pollock Brush Co., Easton, Pa.
Torrington Brush Works, The, Torrington, Conn.
Warner, W. E., & Co., New York, N. Y.

BRUSHES, SCRATCH.

(See Brushes, Wire.)

BRUSHES, STENCIL.

Matthews & Co., Jas. H., Pittsburgh, Pa.
Self Feeding Brush Co., The, Boston, Mass.

BRUSHES, WIRE, CIRCULAR.

Economy, Monitor, Osborn—Osborn Mfg. Co., Inc., Cleveland, O.
Electra-Weld—Herold Bros. Co., The, Cleveland, O.
Gem—Gem Mfg. Co., Pittsburgh, Pa.
Milwaukee Brush Mfg. Co., Milwaukee, Wis.
National Brush Company, Aurora, Ill.
Newark Brush & Scraper Co., Newark, N. J.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Specialty Mfg. Co., The, Cleveland, O. "Perfect Balance."
Warner, W. E., & Co., New York, N. Y.

BRUSHES, WIRE, HAND.

Abbott Wire Brush Co., Boston, Mass.
Browne, F. W., Co., Farmington, N. H.
Capital—Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind.
Flint, Warren F., Co., Boston, Mass.
Haisler Bros. Co., Chicago, Ill.
Herold Bros. Co., The, Cleveland, O.
Hill & Griffith Co., Cincinnati, O.
Mulholland, Wm., New York, N. Y.
Newark Brush & Scraper Co., Newark, N. J.
Obermayer, S., Co., The, Cincinnati, O.
Osborn Mfg. Co., Inc., The, Cleveland, Ohio.
Phoenix Brush & Mfg. Co., Chicago, Ill.
Quick Kleaner—Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Shanafelt Mfg. Co., The, Canton, O.
Specialty Mfg. Co., The, Cleveland, O. "Even Trim."
Stow Mfg. Co., Binghamton, N. Y.
Victor—Joseph Lay Co., Portland, Ind.
Warner, Wm. E., & Co., New York, N. Y.
Wilson Welder & Metals Co., Inc., Hoboken, N. J.
Worcester Brush & Scraper Co., Inc., Worcester, Mass. (Trade names—Oval-Spiral, Re-Mov-All, Sampson.)

BUCKETS, CLAM SHELL AND ORANGE PEEL.

Blaw-Knox—Blaw-Knox Co., Pittsburgh, Pa.
Brown Hoisting Machinery Co., The, Cleveland, O.
Browning-Crane Co., The, Cleveland, O. "Browning."
Buffalo Hoist & Derrick Co., Buffalo, N. Y.
Codd Tank & Specialty Co., Baltimore, Md.
Haiss—Geo. Haiss Mfg. Co., New York, N. Y.
Hayward—The Hayward Co., New York, N. Y.
Industrial Works, Bay City, Mich.
Lakewood—The Lakewood Engineering Co., Cleveland, Ohio.
Link-Belt Company, Chicago and Philadelphia.
National—Phillips, Doup & Co., Inc., Brooklyn, N. Y.
Orton & Steinbrenner Co., Chicago, Ill.
Owen Bucket Co., The, Cleveland, O.
Rawson—Mead-Morrison Mfg. Co., Boston, Mass.
Sackett, Chicago—Sackett Screen & Chute Co., Chicago, Ill.
Shannon—J. Jacob Shannon & Co., Philadelphia, Pa.
Wellman-Seaver-Morgan Co., Cleveland, O.
Williams—G. H. Williams Co., The, Erie, Pa.

BUCKETS, COAL AND ORE.

Baumgarten & Wyler, El Paso, Tex.
Biehl Iron Works, Inc., The, Reading, Pa.
Blaw-Knox—Blaw-Knox Co., Pittsburgh, Pa.
Caldwell & Son Co., H. W., Chicago, Ill.
Gifford-Wood Co., Hudson, N. Y.
Hayward—The Hayward Company, New York, N. Y.
Howe Chain Co., Muskegon, Mich.
Illinois Malleable Iron Co., Chicago, Ill.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Link-Belt Company, Chicago and Philadelphia.
Mullins Body Corp., Stamping Dept. A., Salem, O.
Northern Engineering Works, Detroit, Mich.
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Wellman-Seaver-Morgan Co., Cleveland, O.
Williams, G. H., Co., Erie, Pa.

BUCKETS, CONCRETE AND MORTAR.

Archer Iron Works, Chicago, Ill.
Biehl Iron Works, Inc., The, Reading, Pa.
Boss—American Cement Machine Co., Inc., Keokuk, Ia.
Hayward—The Hayward Co., New York, N. Y.
Insley Mfg. Co., Indianapolis, Ind.
Lakewood Engineering Co., Cleveland, O.
Littleford Bros., Cincinnati, O.
Sackett, Chicago—Sackett Screen & Chute Co., Chicago, Ill.
Steel Basket Co., Cedar Rapids, Ia.
Unionloc—Union Iron Works, Hoboken, N. J. (Lockwood patent, automatic.)
Wall, P., Mfg. Supply Co., The, Pittsburgh, Pa.
Weller Mfg. Co., Chicago, Ill.
Wheeling Corrugating Co., Wheeling, W. Va.

BUCKETS, DRAG SCRAPER.

Brown Hoisting Machinery Co., Cleveland, O.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Hayward—The Hayward Co., New York, N. Y.
Insley Mfg. Co., Indianapolis, Ind.
Link-Belt Company, Chicago and Philadelphia.

BUCKETS, ELEVATING AND HOISTING.

Beckley Perforating Co., Garwood, N. J.
Biehl Iron Works Corp., The, Reading, Pa.
Blaw-Knox—Blaw-Knox Co., Pittsburgh, Pa.
Brown Hoisting Machine Co., Cleveland, O.
Buchanan—C. G. Buchanan Co., Inc., New York, N. Y.
Caldwell H. W., & Son Co., Chicago, Ill.
Clark, Salem—Mullins Body Corp., Stamping Dept. A., Salem, Ohio.
Codd Tank & Specialty Co., Baltimore, Md.
Cross Engineering Co., Carbondale, Pa.
Federal Malleable Co., West Allis, Wis.
Gifford-Wood Co., Hudson, N. Y.
Howe Chain Co., Muskegon, Mich.
Illinois Malleable Iron Co., Chicago, Ill.
Insley Mfg. Co., Indianapolis, Ind.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Latimer, Robert L., & Co., Philadelphia, Pa.
Link-Belt Company, Chicago and Philadelphia.
Littleford Bros., Cincinnati, O.
Mansfield Engineering Co., Indianapolis, Ind.
Nordyke & Marmon, Inc., Indianapolis, Ind.
Parker, S. E., Chicago, Ill.
National—Phillips, Doup & Co., Inc., Brooklyn, N. Y. (mine.)
Rex—Chain Belt Co., Milwaukee, Wis.
Robins Conveying Belt Co., New York, N. Y.
Sackett Screen & Chute Co., Chicago, Ill.
Salem—Mullins Body Corp., Stamping Dept. Salem, O.
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.
Smith Engineering Works, Milwaukee, Wis.
Smith—The T. L. Smith Co., Milwaukee, Wis.
Steel Basket Co., Cedar Rapids, Iowa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Stuebner, G. L., Iron Works, Long Island City, N. Y.
Superior—K. I. Willis Corp., Moline, Ill.
Sykes Co., The Chicago, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Western Pipe & Steel Co., Los Angeles, Cal.
White Star Co., Wichita, Kan.

BUCKETS OR PAILS, FIRE.

"Cream City"—Geuder, Paeschke & Frey Co., Milwaukee, Wis.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Dover Stamping & Mfg. Co., Cambridge, Mass.
Fibrotta—Cordley & Hayes, New York, N. Y.
Foamite-Childs Corp., Utica, N. Y.
Handlan—Handlan-Buck Mfg. Co., St. Louis, Mo.
Pirsch, Peter, & Sons Co., Kenosha, Wis.
Rowe, A. C., & Son, Inc., New York, N. Y.
Safety Fire Extinguisher Co., The, New York, N. Y.

Sexton Can Co., Boston, Mass.
Steel Basket Co., Cedar Rapids, Iowa.
Stempel Fire Extinguisher Co., St. Louis, Mo.
Waggoner—Geo. W. Diener Mfg. Co., Chicago, Ill.
Wheeling—Wheeling Corrugating Co., Wheeling, W Va.

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Euclid—Euclid Crane & Hoist Co., Euclid, O.
Hayward—The Hayward Co., New York, N. Y.
Industrial Works, Bay City, Mich.
Lakewood Engineering Co., Cleveland, O.
Link-Belt Company, Chicago and Philadelphia.
Harnischfeger Corp, The, Milwaukee, Wis.

BUCKETS, GREASE.

Benco—Wilson & Bennett Mfg. Co., Chicago, Ill.
Gem—Gem Mfg. Co., Pittsburgh, Pa.
Rose—Frank Rose Mfg. Co., Hastings, Neb.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.
Walters Mfg. Co., Pittsburgh, Pa.

BUCKETS, HOISTING, SELF-DUMPING.

Blaw-Knox—Blaw-Knox Co., Pittsburgh, Pa.
Brown Hoisting Machinery Co., Cleveland, O.
Evans, F. H., Estate, Brooklyn, N. Y.
Insley Mfg. Co., Indianapolis, Ind.
Jeffrey—Jeffrey Mfg. Co., Columbus, O
Koven, L. O., & Bros., Jersey City, N. J.
Link-Belt Company, Chicago and Philadelphia.
Northern Engineering Works, Detroit, Mich.
Potter Mfg. Co., Indianapolis, Ind.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Syracuse Chilled Plow Co., Syracuse, N. Y.
Weller Mfg. Co., Chicago, Ill.

BUCKETS, MALLEABLE, ELEVATOR.

Caldwell, H. W., & Son Co., Chicago, Ill.
Howe Chain Co., Muskegon, Mich.
Jeffrey—The Jeffrey Mfg. Co., Columbus, O.
Link-Belt Company, Chicago and Philadelphia, Pa.
Michigan Sprocket Chain Co., Detroit, Mich.
Mullins Body Corp., Stamping Dept. A., Salem, O.
Weller Mfg. Co., Chicago, Ill.

BUCKETS, PUMP, RUBBER.

Chain Products Co., Cleveland, O.
Diamond Rubber Co., The, Akron, O.
Wyckoff, A., & Son Co., Elmira, N. Y.

BUCKETS, SAND.

Blaw-Knox—Blaw-Knox Co., Pittsburgh, Pa.
Cook, A. D., Inc., Lawrenceburg, Ind.
Hayward—The Hayward Co., New York, N. Y.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Johnson Mfg. Co., Urbana, O.
Link-Belt Company, Chicago and Philadelphia.
Mullins Body Corp., Stamping Dept. A., Salem, O.
Pioneer—Mansfield Engineering Co., Indianapolis, Ind.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Weller Mfg. Co., Chicago, Ill.
Williams—G. H. Williams Co., The, Erie, Pa.

BUCKETS, SAND, RAILROAD.

Handlan—Handlan-Buck Mfg. Co., St. Louis, Mo.

BUCKETS, STEEL.

Benco—Wilson & Bennett Mfg. Co., Chicago, Ill.
Biehl Iron Works, Inc., The, Reading, Pa.
Caldwell H. W., & Son Co., Chicago, Ill.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Link-Belt Company, Chicago and Philadelphia.
Lyman—Benj. K. Lyman & Co., Chicago Ill.
Petroleum Iron Works Co., The, Sharon, Pa.
Wall Mfg. Supply Co., P., Pittsburgh, Pa.
Weller Mfg. Co., Chicago, Ill.
Willis, K. I., Corp., Moline, Ill.

BUFFERS, ELECTRIC.

Black & Decker Mfg. Co., The, Towson, Md. "Marschke."
Coates—Coates Clipper Mfg. Co., Worcester, Mass.
Forbes & Myers, Worcester, Mass.
Hisey-Wolfe Machine Co., Cincinnati, O.
Ideal—The Neil & Smith Electric Tool Co., Cincinnati, O.
Marschke—The Black & Decker Mfg. Co., Towson, Md.
Rochester Electric Products Corp., Rochester, N. Y.
Standard Electrical Tool Co., The, Cincinnati, O.
Stow Mfg. Co., Binghamton, N. Y.
U. S. Electrical Tool Co., Cincinnati, O.
U. S.—United States Electrical Mfg. Co., **Los Angeles, Cal.**
Willey—Jas. Clark, Jr., Electric Co., Louisville, Ky.

BUFFERS, ELECTRIC, PORTABLE.

Cincinnati Electrical Tool Co., Cincinnati, O.

BUGGIES, LUMBER.
(See also "Trucks, Lumber.")

Bartlett, A. F., & Co., Saginaw, Mich.
Francis, Chas. E., Co., Rushville, Ind.
Hill-Curtis Co., Kalamazoo, Mich.
Streich, A., & Bro. Co., Oshkosh, Wis.
Western Wheelbarrow Mfg. Co., South Fort Smith Ark.

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Sackett-Chicago—Sackett Screen & Chute Co., Chicago, Ill.

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Canfield Rubber Co., The, Bridgeport, Conn.
Diamond Rubber Co., The, Akron, O.
Elastic Tip Co., Boston, Mass.
Frank Bros., New York, N. Y.
Goodrich, B. F. Rubber Co., The, Akron, O.
Heiland—Garrison-Heiland Corp., New York.
Holland Duplex—Holland Instrument Co., Parkesburg, Pa.
Lavelle Rubber Co., Chicago, Ill.
Peerless Mfg. & Supply Co., New York, N. Y.
Red Hot—Clayton & Lambert Mfg. Co., **Detroit, Mich.**
Quaker City Rubber Co., Philadelphia, Pa.
Sexauer, J. A., Mfg. Co., New York, N. Y.

BULLDOZERS.

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Aldrich—The Aldrich Pump Co., Allentown, Pa.
Badger—Rock River Machine Co., Janesville, Wis.
Beatty Machine & Mfg. Co., Cleveland, O. **(vertical.)**
Bliss Co., E. W., Brooklyn, N. Y.
Carroll Foundry & Machine Co., Bucyrus, O.
Cleveland Punch & Shear Works, The, Cleveland, O.
Elmes, Chas. F., Engineering Works, Chicago, Ill.
Hydraulic Press Mfg. Co., Columbus, O.
Lourie Mfg. Co., Springfield, Ill.
Myers, F. E., & Bro. Co., Ashland, O.
National Machinery Co., The, Tiffin, O.
New Doty Mfg. Co., Janesville, Wis.
Niles-Bement-Pond Co., New York, N. Y.
Tate-Jones & Co., Inc., Leetsdale, Pa.
Williams, White & Co., Moline, Ill.

BULL'S-EYE SIGHT FEED.

Powell, Wm., Co., The, Cincinnati, O.

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United States Chain & Forging Co., Pittsburgh, Pa. "McKay Red Bead."

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Canfield, H. O., Co., Bridgeport, Conn.
Canfield Rubber Co., Bridgeport, Conn.
Diamond Rubber Co., Akron, O.
Lavelle Rubber Co., Chicago, Ill.
Republic Rubber Co., The, Youngstown, O.
Wise, J. B., Inc., Watertown, N. Y.

BUMPERS, RUBBER, CLOSET SEAT.

Barwood, L. J., Mfg. Co., Stoneham, Mass.
Canfield, H. O., Co., The, Bridgeport, Conn.
Canfield Rubber Co., The, Bridgeport, Conn.
Cincinnati Rubber Mfg. Co., Cincinnati, O.
Diamond Rubber Co., Inc., Akron, O.
Elastic Tip Company, The, Boston, Mass.
Good Mfg. Co., New York, N. Y.
Goodrich, B. F., Rubber Co., The, Akron, O.
Heiland—Garrison-Heiland Corp., New York, N. Y.
Indiana Rubber & Insulated Wire Co., Jonesboro, Ind.
Lucky Strike—Lavelle Rubber Co., Chicago, Ill.
New York Belting & Packing Co., New York, N. Y.
Quaker City Rubber Co., Philadelphia, Pa.
Quick Detachable—Adam A. Long, Rochester, N. Y.
Republic Rubber Co., The, Youngstown, O.
Schacht Rubber Mfg. Co., Huntington, Ind.
Sexauer, J. A., Mfg. Co., Inc., New York, N. Y.
Western Rubber Co., Goshen, Ind.
Wilbow—The Williams-Bowman Rubber Co., Cicero, Ill.
Woodward-Wanger Co., Philadelphia, Pa.

BUNKS, STEEL.

Tiger—Haggard & Marcusson Co., Chicago, Ill.

BUNTERS, LOOM.

Bond, Charles, Co., Philadelphia, Pa.
Jacobs—E. H. Jacobs Mfg. Co., Danielson, Conn

BURNERS, ANNEALING.

Billow—National Supply Co., Chicago, Ill.
Buzzer—Charles A. Hones, Inc., Baldwin, Long Island, N. Y.

Hauck—Hauck Mfg. Co., Brooklyn, N. Y.
Improved Appliance Co., Brooklyn, N. Y.
Rockwell Furnace Co., New York, N. Y.

BURNERS, AUTOMATIC BLAST.

Buzzer—Charles A. Hones, Inc., Baldwin, Long Island, N. Y.

BURNERS, BUNSEN.

Buzzer—Charles A. Hones, Inc., Baldwin, Long Island, N. Y.
Improved Appliance Co., Brooklyn, N. Y.
Johnson Gas Appliance Co., Cedar Rapids, Ia.
Newark Brass Works, Newark, N. J.
Selas—Selas Company, Philadelphia, Pa.

BURNERS, COAL, AUTOMATIC.

The Iron Fireman Mfg. Co., Portland, Ore.

BURNERS, COMBINATION, FOR FUEL OIL AND GAS.

Advance Furnace & Engineering Co., Springfield, Mass.
Davison, N. C., Gas Burner & Welding Co., Pittsburgh, Pa. (Trade names—Imperial, Vesuvius.)
Duquesne Burner Service Co., Pittsburgh, Pa.
Gilbert & Barker Mfg. Co., Springfield, Mass.
Lancaster Iron Works, Inc., Lancaster, Pa.
National—National Products Co., East Liverpool, O.
RMC—Rotary Mfg. Co., Los Angeles, Cal.
Severance, S., Mfg. Co., Glassport, Pa.
Swartwout—The Swartwout Co., Cleveland, O.
Tate, Jones & Co., Inc., Leetsdale, Pa.
Vesuvius—N. C. Davison Gas Burner & Welding Co., Pittsburgh, Pa.
Volz Engineering Equipment Co., Long Beach, Cal.
Wayne Tank & Pump Co., Ft. Wayne, Ind.

BURNERS, FUEL AND NATURAL GAS.

Adapto—The Trolley Supply Co., Gas Appliance Dept., Massillon, O.
American Foundry & Mfg. Co., St. Louis, Mo.
Anthony Co., The, Long Island City, N. Y.
Barber—Cleveland Gas Burner & Appliance Co., Cleveland, O. (For heating boilers).
Billow—National Supply Co., Chicago, Ill.
Bray—Wm. M. Crane Co., New York, N. Y.
Buzzer—Chas. A. Hones, Inc., Baldwin, Long Island, N. Y.
Calorex—W. N. Best Furnace & Burner Corp., New York.
Coleman—Foundry Equipment Co., Cleveland, Ohio.
Columbiana Boiler Co., Columbiana, O.
Crown Brick—E. C. Merrill, Pittsburg, Pa.
Davison, N. C., Gas Burner & Welding Co., Pittsburgh, Pa. (Trade names—Imperial, Vesuvius.)
Eriez—Eriez Stove & Mfg. Co., Erie, Pa.
Franklin Gas Burner Mfg. Co., Cincinnati, O.
Gwynn Engineering Company, Pittsburgh, Pa.
Hawks—Hugo Mfg. Co., West Duluth, Minn.
Henry Bros., Massillon, O.
Herbert Boiler Co., The, Chicago, Ill.
Illinois Malleable Iron Co., Chicago, Ill.
Improved Appliance Co., Brooklyn, N. Y.
Johnson Gas Appliance Co., Cedar Rapids, Iowa.
Kemp, C. M., Mfg. Co., Baltimore, Md.
Koerting—Schutte & Koerting Co., Philadelphia, Pa.
Lamy, A. & Son, Elizabeth, N. J.
Lancaster Iron Works, Inc., Lancaster, Pa.
Lawler Waterfeed & Damper Co., Mt. Vernon, N. Y. (Trade names—Hot Blast, Volcano.)
Mahrvel—Mahr Mfg. Co., Minneapolis, Minn.
Matlack, W. H., Louisville, Ky.
Meco—Monarch Engineering Co., St. Louis, Mo.
Monarch Engineering & Mfg. Co., The, Baltimore, Md.
Odin—Odin Stove Mfg. Co., Erie, Pa.
Oil Well Supply Co., Pittsburgh, Pa.
Quigley Furnace Specialties Co., New York, N. Y.
Rockwell, W. S., Co., New York.
R. M. C., Rotary—Rotary Mfg. Co., Los Angeles, Calif.
Selas—The Selas Co., Philadelphia, Pa.
Standard—The Armstrong Mfg. Co., Huntington, W. Va.
Standard—Standard Heating & Radiator Co., Pittsburg, Pa. (Steam and hot water.)
Straight Line—E. C. Merrill, Pittsburg, Pa.
Surface Combustion Co., New York, N. Y.
Tate, Jones Co., Inc., Leetsdale, Pa.
Triplex—The Armstrong Mfg. Co., Huntington, W. Va.
Union Gas Burner Co., Buffalo, N. Y.
Vim—Silver & Co., Brooklyn, N. Y.
Volz Cyclone—Volz Engineering Equipment Co., Los Angeles, Cal.
Weimer Machine Works Co., Lebanon, Pa.
Wilson-Daum Co., Pittsburgh, Pa. (Trade names—Crown, Reliance, Solar, Star, Wonder.)
Wolff, A. H., Gas Radiator Co., New York, N. Y. (Industrial).
York—Abendroth Bros., Port Chester, N. Y.
Zurn, J. A., Mfg. Co., Erie, Pa. (Trade names—Advance, Holland.)

BURNERS, FUEL OIL.

Aeroil—Aeroil Burner Co., Inc., West New York, N. J.
Anthony Nebulyte—The Anthony Co., Long Island City, N. Y.
Barthel—Van Praag Sales Corp., New York, N. Y.
Bellevue Industrial Furnace Co., Detroit, Mich.
Billow—National Supply Co., Chicago, Ill.
Buckeye—Macleod Co., The, Cincinnati, O.
Calorex—W. N. Best Furnace & Burner Corp., New York, N. Y.
Coleman—Foundry Equipment Co., Cleveland, O.
Combustion—The Combustion Company, Chicago, Ill.
Combustion Engineering Corp., New York, N. Y. "Quinn."
Combustion Service Corp'n, New York, N. Y.
Continental—Continental Oil Burner Corp., Chicago, Ill.
Cox & Sons Co., The, Bridgeton, N. J.
Davison, N. C., Gas Burner & Welding Co., Pittsburgh, Pa. (Trade names—Anderson, Vesuvius.)
Fess—Fess System Co., San Francisco, Calif.
Fess System—Petroleum Heat & Power Co., New York City.
Foerst, John, & Sons, Bayonne, N. J.
Franklin Gas Burner Mfg. Co., Cincinnati, O.
Geist Mfg. Co., Atlantic City, N. J.
Glafke—Loggers' Oil Euipment Co., Portland, Ore.
Gwynn—Gwynn Engineering Company, Pittsburgh, Pa.
Hammel—Hammel Oil Burner Co., Los Angeles, Cal.
Hauck Mfg. Co., Brooklyn, N. Y.
Helios—N. C. Davison Gas Burner & Welding Co., Pittsburgh, Pa.
Improved Appliance Co., The, Brooklyn, N. Y.
James Oil Burner Co., Pittsburgh, Pa.
Jarvies—Jarvies Gas & Oil Burner Co., Inc., Kansas City, Mo.
Kellogg Mfg. Co., Rochester, N. Y.
Kirkwood—Tate, Jones & Co., Leetsdale, Pa.
Koerting—Schutte & Koerting Co., Philadelphia, Pa.
Lalor Fuel Oil System Co., Baltimore, Md.
Lamy, A., & Son, Elizabeth, N. J.
Leahy—Leahy Mfg. Co., Los Angeles, Calif.
Leiman Bros., New York, N. Y.
Little Giant—G. E. Witt Co., Inc., San Francisco, Cal.
Littleford Bros., Cincinnati, Ohio.
Lunkenheimer Co., Cincinnati, O.
Mahrvel—Mahr Mfg. Co., Minneapolis, Minn.
McKneat Mfg. Co., New York.
Milburn—The Alexander Milburn Co., Baltimore, Md.
Monarch, Monarch Rockwell—Monarch Engineering & Mfg. Co., The, Baltimore, Md.
Multiple Spray—Liquid Fuel Engineering Co., Detroit, Mich.
National—National Airoil Burner Co., Philadelphia, Pa.
National—National Products Co., East Liverpool, O.
Newark Oil Burning Devices Co., Newark, N. J.
Norris Bros., Inc., Robinson, Ill.
North American Mfg. Co., The, Cleveland, O.
Oil Well Supply Co., Pittsburg, Pa.
Quigley Furnace Specialties Co., New York, N. Y.
Reid, Joseph, Gas Engine Co., Oil City, Pa.
Reliable—Reliable Stove Co., Div. of American Stove Co., Cleveland, O.
Rockwell, W. S., Co., New York, N. Y.
Rotary—Rotary Mfg. Co., Los Angeles, Cal.
Scientific Instrument Co., Newark, N. J.
Surface Combustion Co., New York, N. Y.
Urn Burner—Johnson Gas Appliance Co., Cedar Rapids, Ia.
Wayne Tank & Pump Co., Ft. Wayne, Ind.
Weller Mfg. Co., Chicago, Ill.

BURNERS OR INCINERATORS, GARBAGE AND REFUSE.

Ansonia—Ansonia Corporation, New York, N. Y.
Anthony Co., The, Long Island City, N. Y.
Birchfield Boiler Co., Tacoma, Wash.
Bros—Wm. Bros Boiler & Mfg. Co., Minneapolis, Minn.
Buckeye—The Macleod Co., Cincinnati, O.
Burke Engineering Co., Chicago, Ill.
Cragin—M. J. Cragin, Chicago, Ill.
Dean—Washburn & Granger, Inc., New York, N. Y.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Eclipse—Standard Wire Co., New Castle, Pa.
Equator—The Herbert Boiler Co., Chicago, Ill.
G-R—Griscom-Russell Co., New York, N. Y.
Guardian Gas Appliance Co., Cleveland, O.
Heenan—The Destructor Co., New York, N. Y.
Heggie-Simplex—Heggie-Simplex Boiler Co., Joliet, Ill. (with water heater.)
Herbert—The Herbert Boiler Co., Chicago, Ill.
Imico—Illinois Malleable Iron Co., Chicago, Ill.
Improved Appliance Co., Brooklyn, N. Y.
Incinerite—E. C. Stearns & Co., Syracuse, N. Y.
Incinerite—Shannon Mfg. Co., New York, N. Y.

Kernerator—Kerner Incinerator Co., The, Milwaukee, Wis.
Kewanee—Kewanee Boiler Co., Kewanee, Ill.
Morse-Boulger Destructor Co., The, New York, N. Y.
Pyrofuse—J. B. Prescott & Son, Webster, Mass.
Pittsburgh Incinerator Mfg. Co., Pittsburgh, Pa. "San-a-tor."
Sims—The Sims Co., Erie, Pa.
Superior—The Standard Wire Co., New Castle, Pa.
Wilks—S. Wilks Mfg. Co., Chicago, Ill.

BURNERS, KEROSENE OR OIL, FOR HEATING BOILERS.

Aeroil—Aeroil Burner Co., Inc., Union Hill, N. J.
Aetna Automatic Oil Burner Co., Providence, R. I.
Allen & Lee Mfg. Co., Wichita, Kans.
Atlas—Atlas Oil Burner Co., Chicago, Ill.
Atwood—Atwood Mfg. Co., Minneapolis, Minn.
Automatic Burner Corp., Chicago, Ill.
Chalmers Oil Burner Co., Minneapolis, Minn.
Caloroil Burner Corp., New York, N. Y.
Climax—E. L. Miller Mfg. Co., Kansas City, Mo.
Combustion Fuel Oil Burner Co., The, Milwaukee, Wis.
Deckert—Deckert Mfg. Co., Minneapolis, Minn.
Efficiency Engineering Co., Boston, Mass.
Fess—Fess System Co., San Francisco, Cal.
Franklin—Franklin Gas Burner Mfg. Co., Cincinnati, O.
French Rotary Oil Burner Co., Sebastopol, Cal.
Gem Oil Burner Co., Lincoln, Neb.
Gloria—Gloria Light Co., Chicago, Ill.
Hardinge Bros., Chicago, Ill.
Hart Oil Burner Co., Peoria, Ill.
Jarvies—Jarvies Gas & Oil Burner Co., Inc., Kansas City, Mo.
Johnson, S. T., Oil Burner Co., Oakland, Cal.
Jost's, Edmund, Sons, Newark, N. J.
Kleen Heet—Winslow Boiler & Engineering Co., Chicago, Ill.
Lalor Fuel Oil System Co. of Md., Inc., Baltimore, Md.
Lattner, P. M., Mfg. Co., Cedar Rapids, Ia.
Master Oil Burner Co., Chicago, Ill.
May Oil Burner Corp., Baltimore, Md.
Milwaukee Tank Works, Inc., Milwaukee, Wis.
Oil-O-Matic—Williams Oil-O-Matic Heating Corp., Bloomington, Ill.
Oliver Oil-Gas Burner Co., St. Louis, Mo.
Page—Aaball Manufacturing Co., Chicago, Ill.
Pennsylvania Rotary Globe Oil Burner Co., Philadelphia, Pa.
Rotary—Rotary Oil Burner Corp., Chicago, Ill.
Scanlan Handy Heater Co., Inc., Bloomington, Ill. "Scanlan."
Sherman Oil Burning System, Inc., Worcester, Mass.

BURNERS, LABORATORY, PIPE AND URNS.

Buzzer—Chas. A. Hones, Inc., Baldwin, L. I., N. Y.

BURNERS, LEAD.

(See "Apparatus, Lead Burning.")

BURNERS AND STOKERS, LOW GRADE FUEL, COAL DUST, SAWDUST, ETC.

Aero—Aero Pulverizer Co., New York, N. Y.
Allington & Curtis Mfg. Co., Saginaw, Mich.
Combustion Enginering Corp., New York, N. Y. "Lopulco."
Combustion Service Corp'n, New York, N. Y.
Hagan, Geo. J., Co., Pittsburgh, Pa.
Holbeck System—Bonnot Co., Canton, O.
Improved Appliance Co., Brooklyn, N. Y.
J. R. S. Specialties Mfg. Co., Inc., The, New York, N. Y.
Prest-O-Lite Co., Inc., Indianapolis, Ind.
Pulverburner—K-B Pulverizer Co., Inc., New York, N. Y.
Stroud, E. H., & Co., Chicago, Ill.

BURNERS, PAINT.

Buzzer—Charles A. Hones, Inc., Baldwin, Long Island, N. Y.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Hauck—Hauck Mfg. Co., Brooklyn, N. Y.
Improved Appliance Co., Brooklyn, N. Y.
Mahrvel—Mahr Mfg. Co., Minneapolis, Minn.
Quick Meal Stove Co., Div. American Stove Co., St. Louis, Mo.
Turner Hot Blast—The Turner Brass Works, Sycamore, Ill.

BURNERS, REFUSE.

Adams—The Adams Co., Dubuque, Iowa.
Bretting Mfg. Co., C. G., Ashland, Wis. (sawmill).
Bros—Wm. Bros Boiler & Mfg. Co., Minneapolis, Minn.
Cyclone Red Tag—Cyclone Fence Co., Waukegan, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Manistee Iron Works Co., Manistee, Mich.
Muskegon Boiler Works, Muskegon, Mich.
Sterling—Griscom-Russell Co., New York, N. Y.

BURNERS, STEAM TESTING.

Hauck Mfg. Co., Brooklyn, N. Y.

BURNERS, WEED.

Aeroil Burner Co., Inc., West New York, N. J.

BURRS, RIVET.

Bettcher Stamping & Mfg. Co., Cleveland, O.
Cleveland Wrought Products Co., Cleveland, O.
Stanley Works, The, New Britain, Conn.
Wrought Washer Mfg. Co., Milwaukee, Wis.

BUSHINGS, BRONZE.

Agrilite—American Injector Co., Detroit, Mich.
American Tool and Machine Co., Boston, Mass.
Armor—American non-Gran Bronze Corp., Berwyn, Pa.
Bearium Bearings, Inc., Boston, Mass.
Buckeye Hy-Speed—The Buckeye Brass & Mfg. Co., Cleveland, O.
Bunting Brass & Bronze Co., The, Toledo, O.
Chicago Pulley & Shafting Co., Chicago, Ill.
Federal-Mogul Corp., Detroit, Mich.
Fredericksen Company, Saginaw, Mich.
Gilbert—A. Gilbert & Sons Brass Foundry Co., St Louis, Mo.
HarBronz—Arthur Harris & Co., Chicago, Ill.
Hill Collar Oiling—The Hill Clutch Machine & Foundry Co., Cleveland, O.
Johnson Bronze Co., New Castle, Pa.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Phosphor Bronze Smelting Co., The, Philadelphia, Pa.
Tiger—More-Jones Brass & Metal Co., St. Louis, Mo.
Weller Mfg. Co., Chicago, Ill.

BUSHINGS, CIRCULATING OIL.

COB—W. T. Shackley & Son Co., Boston, Mass.

BUSHINGS, DIE STOCK.

Adjustable Bard—The Armstrong Mfg. Co., Bridgeport, Conn.
National Automatic Tool Co., Richmond, Ill.
Walworth Company, Boston, Mass.

BUSHINGS, HOSE.

Jiffy—The Jiffy Fire Hose Rack Co., New York, N. Y.
Medina Stamping & Machine Co., Inc., Medina, N. Y.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Schlangen Bros. Co., Chicago, Ill.

BUSHINGS, JIG.

Ex-Cell-O-Tool & Mfg. Co., Detroit, Mich.

BUSHINGS, OILLESS AND SELF-LUBRICATING.

(See also, "Bearings, Self-lubricating.")

Ajax—James Hunter Machine Co., North Adams, Mass.
American Vulcanized Fibre Co., Wilmington, Del.
Arguto—Arguto Oilless Bearing Co., Philadelphia, Pa.
Bound Brook Oil-Less Bearing Co., Bound Brook, N. J.
Brown—Brown Engineering Co., Reading, Pa.
Burlingame Co., A., Worcester, Mass.
Graphite Metallizing Corp., Yonkers, N. Y.
Lubrite—Merriman Bros., Boston, Mass.
McMillan's Sons, W. H., New York, N. Y.
Merriman Bros., Boston, Mass.
Moccasin—Moccasin Bushing Co., Chattanooga, Tenn.
Neveroil Bearing Co., Wakefield, Mass. (Trade names—Graphex, Nevva-oil.)
Nolu—Nolu Oilless Bearing Co., Philadelphia, Pa.
O. & S., Never Oil—O. and S. Bearing Co., Detroit, Mich.
Reliance—Metal Saw & Machine Co., Inc., Springfield, Mass.
Rhoades, R. W., Metaline Co., The, Long Island City, N. Y. "Metaline."
Torrey Roller Bushing Works, Batl., Me.
Western Block Co., Lockport, N. Y.

BUSHINGS, PIPE, BRASS AND BRONZE.

Acheson Mfg. Co., Rankin, Braddock, P. O., Pa.
American Brass & Copper Co., The, New York, N. Y
American Foundry & Mfg. Co., St. Louis, Mo.
Ansonia Mfg. Co., Ansonia, Conn.
Autocrat—United American Metals Corp., Brooklyn, N. Y.
Barnard Mfg. Co., Spokane, Wash.
B. B.—Boston Brass Co., Waltham, Mass.
Bridgeport Brass Co., Bridgeport, Conn.
Bunting—Bunting Brass & Bronze Co., Toledo, O.
Burlington Brass Works, Burlington, Wis.
Cahill Mfg. Co., Worcester, Mass.
Davis & Hemphill, Elkridge, Md.

Durham—Prier Brass Mfg. Co., Kansas City, Mo.
Eclipse—Pacific Metal Works, San Francisco, Calif.
Elgin Brass Co., New York, N. Y.
Exeter Brass Works, Exeter, N. H.
F. & H. Foundry Co., Newark, N. J.
Fair Haven Foundry & Machine Co., Fair Haven, Vt
Faries Mfg. Co., Decatur, Ill.
Fries & Co., Buffalo, N. Y.
General Brass Co., Detroit, Mich.
Gilbert's—A. Gilbert & Sons Brass Foundry Co., St. Louis, Mo.
Graham, James, & Co., New Haven, Conn.
Guilderland Foundry Co., Guilderland, N. Y.
Harris, Arthur, & Co., Chicago, Ill.
Indiana Brass Co., The, Frankfort, Ind.
Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Jost's Sons, Edmund, Newark, N. J.
Loyal Brass Co., Cleveland, O.
Lunkenheimer Co., Cincinnati, O.
Midland Mfg. Co. Fort Worth, Tex. "Midland."
Mueller Co., Decatur, Ill.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Pittsburg Valve & Fittings Co., Barberton, O.
Powell Co., The Wm., Cincinnati, O.
Powhatan Brass & Iron Works, Ranson, W. Va.
Prier—Prier Brass Mfg. Co., Kansas City, Mo.
Richardson Brass Co., Edro, Baltimore, Md.
Robertshaw Thermostat Co., Youngwood, Pa.
Sherman Mfg. Co., H. B., Battle Creek, Mich.
Standard Brass & Iron Works, Milwaukee, Wis.
Star—U. T. Hungerford Brass & Copper Co., New York
Tryco Products, Inc., Westfield, Mass.
United Brass Mfg. Co., Cleveland, O.
United Wire & Supply Co., Providence, R. I.
Velox—A. Gilbert & Sons Brass Foundry Co., St Louis, Mo.
Walworth Company, Boston, Mass.

BUSHINGS, PIPE, CAST IRON AND MALLEABLE IRON.

Automatic Products Corp., Long Island City, N. Y.
Belfield Co., H. Philadelphia, Pa.
C—Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Fair Haven Foundry & Machine Co., Fair Haven, Vt
General Fire Extinguisher Co., New York, N. Y.
Guilderland Foundry Co., Guilderland, N. Y.
Illinois Malleable Iron Co., Chicago, Ill.
Limbert & Co., Geo. B., Chicago, Ill.
Newbury, Jay H. & Son, Goshen, N. Y.
Newbury Mfg. Co., Monroe, N Y.
Oil Well Supply Co., Pittsburg, Pa.
Pittsburg Valve & Fittings Co., Barberton, O.
Ravena Iron Co., Ravena, N. Y.
Reidy Machine Screw Co., New Haven, Conn.
Walworth Company, Boston, Mass.

BUSHINGS, PULLEY.

American Tool & Machine Co., Boston, Mass.
Bull Dog—Huron Industries, Inc., Detroit, Mich.
Dodge Mfg. Corp., Mishawaka, Ind.
Gast—Standard Pressed Steel Co., Jenkintown, Pa.
Gilbert, A., & Sons, Brass Foundry Co., St. Louis, Mo.
Johnson Bronze Co., New Castle, Pa.
Link-Belt Company, Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
Nevva-Oil—Neveroil Bearing Co., Wakefield, Mass.
Perfection—Christian Flierl Co., Inc., Buffalo, N. Y.
Philips Pressed Steel Pulley Works, Philadelphia, Pa.
Rhoades, R. W., Metaline Co., Inc., Long Island City, N. Y. "Metaline."
Saginaw Mfg. Co., Saginaw, Mich.
Weller Mfg. Co., Chicago, Ill.
Wood, T. B., Sons Company, Chambersburg, Pa. (cast iron, phosphor bronze and bronze graphite.)

BUSHINGS, RADIATOR.

American Radiator Co., New York, N. Y.
American Safety Lamp & Mine Supply Co., Scranton, Pa.
Crane Co., Chicago, Ill.
Flagg, Stanley G., & Co., Philadelphia, Pa.
Fowler & Wolfe Mfg. Co., Philadelphia, Pa.
Grinnell Co., Inc., Providence, R. I.
Imico—Illinois Malleable Iron Co., Chicago, Ill.
Newbury, Jay H., & Son, Goshen, N. Y.
Newbury Mfg. Co., Monroe, N. Y
New Wa—Neuman-Warnock Co., Beaver Dam, Wis.
Pittsburgh Valve & Fittings Co., Barberton, O.
Ravena Iron Co., Ravena, N. Y.
United States Radiator Corp., Detroit, Mich.
Walworth Company, Boston, Mass.
Ward, J. P., Foundry Co., Ossining, N. Y.

BUSHINGS, ROLLER.

Torrey Roller Bushing Works, Bath, Me.
Western Block Co., Lockport, N. Y.

BUSHINGS, SOLDERING.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Albrass Co., Inc., Coxsackie, N. Y.
American Foundry & Mfg. Co., St. Louis, Mo.
American Sanitary Mfg. Co., Abingdon, Ill.
Atkinson, Co., The, Rochester, Pa.
Baltimore Valve Corp., Baltimore, Md.
Erbco—Edro Richardson Brass Co., Baltimore, Md.
Enterprise Brass Works, Muskegon, Mich.
Exeter Brass Works, Exeter, N. H.
Frost Mfg. Co., Kenosha, Wis.
Hays Mfg. Co., Erie, Pa.
Healey, Peter, Brass Foundry Co., Evansville, Ind.
Hoelscher Bros., Chicago, Ill.
Ideal—Hilton Brass Foundry, Hilton, N. J.
Illinois Malleable Iron Co., Chicago, Ill.
Mueller Co., Decatur, Ill.
Peru Brass & Mfg. Co., Peru, Ind.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Rockford Brass Works, Rockford, Ill.
Sherwood Brass Works, Detroit, Mich.
Stebbins, E., Mfg. Co., Springfield, Mass.
Sterling—Sterling Faucet Co., Newcomerstown, O.
Street & Kent Mfg., Chicago, Ill.

BUSHINGS, TRAP.

Acheson Mfg. Co., Braddock P. O., Rankin, Pa.
American Sanitary Mfg. Co., Abingdon, Ill.
Burlington Brass Works, Burlington, Wis.
Detroit Brass & Malleable Works, Detroit, Mich.
Exeter Brass Works, Exeter, N. H.
Frost Mfg. Co., Kenosha, Wis.
Haydenville Co., Haydenville, Mass.
Hilton Brass Foundry Co., Hilton, N. J.
I. & M.—Ireland & Matthews Mfg. Co., Detroit, Mich.
Lehnert & Co., New York, N. Y.
Mueller Co., Decatur, Ill.
Peck Bros. & Co., New Haven, Conn.
Powers, J. P., Mfg. Co., Inc., Ossining, N. Y.
Prier Brass Mfg Co., Kansas City, Mo.
S & K—Street & Kent Mfg. Co., Chicago, Ill.
Sterling Brass Co., Cleveland, O.
Victoria Metal Co., Erie, Pa.
Walworth Company, Boston, Mass.
Wise, Inc., J. B., Watertown, N. Y.

BUSHINGS, WOOD.

Nevva-oil—Neveroil Bearing Co., Wakefield, Mass.
Nigrum—Bound Brook Oil-Less Bearing Co., Bound Brook, N. J.
Rowe, Henry, Mfg. Co., Newaygo, Mich.

BUSTERS, RIVET.

Chicago Pneumatic Tool Co., New York, N. Y. "Boyer Superior," "Boyer."
Cornwell—The Cornwell Quality Tools Co., Cuyahoga Falls, O.
Hinckley Machine Works, Hinckley, Ill.
Klein-Logan Co., The, Pittsburg, Pa.
Mephisto—The W. A. Ives Mfg. Co., Wallingford, Conn.
Paragon Tool Co., Seattle, Wash.
Verona Tool Works, Pittsburgh, Pa.
Vulcan Tool Mfg. Co., Quincy, Mass.

BUTTONS, HANDLES AND KNOBS, BRASS.

American Brass & Copper Co., New York, N. Y.
American Sanitary Mfg. Co., Abingdon, Ill.
Ampinco—American Pin Co., Waterbury, Conn.
Beneke Mfg. Co., Chicago, Ill.
Burlington Brass Works, Burlington, Wis.
Capitol Brass Works, Detroit, Mich.
Chicago Faucet Co., Chicago, Ill.
Clean Sweep—Detroit Sanitary Supply Co., Detroit, Mich.
Dearborn Brass Co., Cedar Rapids, Ia.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Federal-Huber Co., Chicago, Ill.
Frost Mfg. Co., Kenosha, Wis.
Hansen Brass Mfg. Co., Grand Rapids, Mich.
Haydenville Co., Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
McRae & Roberts Co., Detroit, Mich.
Morency-Van Buren Mfg. Co., Sturgis, Mich.
Perkes, Chas., Co., Philadelphia, Pa.
Phoenix Brass Foundry, Irvington, N. J.
Roberts Brass Mfg. Co., Detroit, Mich.
S & K—Street & Kent Mfg. Co., Chicago, Ill.
Sherwood Brass Works, Detroit, Mich.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Waterbury Mfg. Co., Waterbury, Conn.
Wiseco—J. B. Wise, Inc., Watertown, N. Y.

BUTTONS, HANDLES AND KNOBS, CHINA.

Avco—Alliance Vitreous China Co., Alliance, O.
Bay Ridge Specialty Co., Inc., Trenton, N. J.
Dececo Co., Boston, Mass.
Douglas, John, Co., Cincinnati, O.
Empire China Works, Brooklyn, N. Y.
Hutter, Karl, Inc., New York, N. Y.
Maddock's Sons Co., Thos., Trenton, N. J.
Mitchell-Bissell Co., Trenton, N. J.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Trenton Potteries Co., Trenton, N. J.

BUTTS AND HINGES, STEEL.

Frost, C. L., & Son, Grand Rapids, Mich.
Lanz, M., Bolt Co., Pittsburgh, Pa.
McKinney Mfg. Co., Pittsburgh, Pa.
Paul—The American Hinge Co., St. Louis, Mo.
R-W—Richards-Wilcox Mfg. Co., Aurora, Ill.
Sargent—Sargent & Co., New Haven, Conn.

CABINET AND PUMP, GREASE.

Runyen—Pulte-Korreck Machine Co., Grand Rapids, Mich.

CABINETS, BLUE PRINT.

Lyon—Lyon Metallic Mfg. Co., Aurora, Ill.
Rowe, Henry, Mfg. Co., Newaygo, Mich.

CABINETS, FOR BOLTS, SCREWS, ETC.

American Bolt & Screw Case Co., Dayton, O.
Eclipse Bolt Case—Wellston Mfg. Co., Wellston, O.
Heller, W. C., & Co., Montpelier, O.
Lyon—Lyon Metallic Mfg. Co., Aurora, Ill.
Wellston Mfg. Co., The, Wellston, O.
Wiley—Hall Mfg. Co., Harrison, N. J.

CABINETS, DRILL.

(See "Cases, Drill.")

CABINETS, FIRE HOSE.

Simmons, John, Co., New York, N. Y.
Rapid, Two in One—Charles Nuhring & Bro., Cincinnati, Ohio.
Wirt's All Steel—Wirt & Knox Mfg. Co., Philadelphia, Pa.

CABINETS AND EQUIPMENT, FIRST AID, FOR FACTORIES.

La France—American La France Fire Engine Co., Elmira, N. Y.
M-S-A—Mine Safety Appliance Co., Pittsburgh, Pa.
Red Cross—Johnson & Johnson, New Brunswick, N. J.
Safety Equipment Service Co., The, Cleveland, O.

CABINETS, KEY STORAGE, STEEL.

The Hart & Hutchinson Co., New Britain, Conn.

CABINETS, LATHE TOOL.

Armstrong—Armstrong Bros. Tool Co., Chicago, Ill.

CABINETS, MEDICINE, FOR BATH ROOMS.

Berglas, M. P., Mfg. Co., Brooklyn, N. Y.
Beneke Mfg. Co., Chicago, Ill.
Borin Mfg. Co., Cicero, Ill.
Brasscrafters—J. P. Eustis Mfg. Co., Boston, Mass. (steel or wood).
Church, C. F., Mfg Co., Holyoke, Mass
Dixie Metal Products Co., Birmingham, Ala.
Eastern Specialty Mfg. Co., Scranton, Pa.
Enamo—W. R. Hughes & Co., Inc., New York, N. Y.
Golco Sanitary System, Inc., Philadelphia, Pa.
Hess Warming & Ventilating Co., Chicago, Ill. (steel.)
Hoegger, Joseph A., Inc., Jersey City, N. J.
Ideal—Dean Metal Co., St. Louis, Mo.
Leclaire Cabinet Works, Edwardsville, Ill.
Meeco—Manufacturing Equipment & Engineering Co., Framingham, Mass.
Mott, J. L., Iron Works, The, Trenton, N. J.
Nurre Mirror Plate Co., Bloomington, Ind. (wood or steel).
Omala—The Galard Co., Newark, N. J.
Parker, Charles, Co., Meriden, Conn.
Pilliod Lumber Co., Swanton, O.
Porceloid—Sanitary Specialties Co., Philadelphia, Pa.
Sanoid—Conant Bros. Co., Somerville, Mass.
Searls Mfg. Co., Newark, N. J. (metal).
Shwab Bros. Co., New York, N. Y.
Silver & Co., Brooklyn, N. Y.
Smith, E. C., Mfg. Co., Chicago, Ill.
Sno-Wite—American Enameled Products Co., Chicago, Ill. (steel, white enameled).
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Standard Tank & Seat Co., Camden, N. J.
Steel Maid—The Bennett Mfg. Co., Alden, N. Y.
White-Steel—White Steel Sanitary Furniture Co., Grand Rapids, Mich.
Wilder Mfg. Co., Inc., Brooklyn, N. Y. "Wilder."

CABINETS, OIL STORAGE.

(See also Cans, Oil Storing.)

American Oil Pump & Tank Co., The, Dayton, O.
Bowser & Co., S. F., Ft. Wayne, Ind.
Western Oil Pump & Tank Co., St. Louis, Mo.

CABINETS, SAND BLAST.

Leiman Bros., New York, N. Y.
Macleod Co., The, Cincinnati, Ohio.

CABINETS, SHOWER BATH.

Betzco—Frank S. Betz Co., Hammond, Ind.
Crist & Schilken Co., Pittsburgh, Pa.
Dixie Metal Products Co., Birmingham, Ala.
Eddy Engineering Co., Alpena, Mich.
Hoffman & Billings Mfg. Co., Milwaukee, Wis.

CABINETS, STORAGE, STEEL.

Angle Steel Stool Co., Plainwell, Mich.
Armstrong Bros. Tool Co., Chicago, Ill.
Durabilt—Durabilt Steel Locker Co., Aurora, Ill.
Haddon Bin Label Co., Haddon Heights, N. J.
Lupton—David Lupton's Sons Co., Philadelphia, Pa.
Lymeco—Lyon Metallic Mfg. Co., Aurora, Ill.
Medart, Fred, Mfg. Co., St. Louis, Mo.
Meeco—The Mfg. Equipment & Engineering Co., Framingham, Mass.
Reliable—Conant & Donelson Co., Conway, Mass.
Skinner Chuck Co., The, New Britain, Conn. "Sturdy Sectional."

CABINETS AND HOLDERS FOR TOILET PAPER.

All White—Bay Ridge Specialty Co., Brooklyn, N. Y.
American Brass Novelty Co., Grand Haven, Mich.
A. P. W. Paper Co., Albany, N. Y. (Trade names—Bob White, Diamond, Onliwon Cabinets.)
Art Brass Co., New York, N. Y.
Brasscrafters—J. P. Eustis Mfg. Co., Boston, Mass.
Brey & Krause Mfg. Co., Allentown, Pa.
Central Specialty Mfg. Co., Chicago, Ill.
Chicago Oval—Geo. T. Johnson Co., Chicago, Ill.
Church, C. F., Mfg. Co., Holyoke, Mass. (Trade names—Pyralin, White Pyralin.)
Easy Set—J. H. Balmer Co., Newark, N. J.
Flat-O-Roll—The Brown-Thomas Co., Inc., Syracuse, N. Y.
Goloo Sanitary System, Philadelphia, Pa.
Lokin—American Brass Novelty Co., Grand Haven, Mich.
Morgan Envelope Co., Div. (U. S. Envelope Co.), Springfield, Mass.
Mott, J. L., Iron Works, The, Trenton, N. J.
No Waste—National Paper Products Co., Carthage, N. Y.
Omala—The Galard Co., Newark, N. J.
Russell, John M., Mfg. Co., Inc., The, Naugatuck, Conn.
Scott Paper Co., Philadelphia, Pa.
Shelby Spring Hinge Co., The, Shelby, O. (Trade names—Satin, Silk.)
S. M. Co.—Searls Mfg. Co., Newark, N. J.
Smith, E. C., Mfg. Co., Chicago, Ill.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Superior Brass Novelty Co., New York, N. Y.

CABLE, HIGHWAY GUARD.

Williamsport Wire Rope Co., Williamsport, Pa.

CABLES AND ROPES, FIRE ESCAPE.

Rope Fire Escape Co., Philadelphia, Pa.

CABLES, WELDING.

Wilson Welder & Metals Co., Inc., Hoboken, N. J.

CABLES, WELL DRILLING.

(See also "Rope, Manila" and "Rope, Wire.")

American—The American Mfg. Co., Brooklyn, N. Y.
American Cable Co., Inc., New York, N. Y.
Columbian Tape Marked—Columbian Rope Co., Auburn, N. Y. (manila).
Drill Well—Waterbury Co., New York, N. Y.
Fischer & Hayes Rope & Steel Co., Chicago, Ill.
Fitler, Edwin H., Co., The, Philadelphia, Pa.
Hooven & Allison Co., The, Xenia, O.
Stevedore—C. W. Hunt Co., Inc., West New Brighton, N. Y.
Wall Cable—Wall Rope Works of New York, N. Y.
Whitlock Cordage Co., New York, N. Y.
Winne, Frank W., & Son, Inc., Philadelphia, Pa.

CABLEWAYS, OVERHEAD.

Blaw-Knox Co., Pittsburgh, Pa.
Broderick & Bascom Rope Co., St. Louis, Mo.
Chisholm-Moore Mfg. Co., The, Cleveland, O.
Clyde Iron Works, Duluth, Minn.
Fischer & Hayes Rope & Steel Co., Chicago, Ill.
Flory—The S. Flory Mfg. Co., Bangor, Pa.
Lambert Hoisting Engine Co., Newark, N. J.
Leschen Co.'s Patent—A Leschen & Sons Rope Co. St. Louis, Mo.
Lidgerwood Mfg. Co., New York, N. Y.
Mundy, J. S., Hoisting Engine Co., Newark, N. J.
National Hoisting Engine Co., Harrison, N. J.
Potter Mfg. Co., Indianapolis, Ind.
Robins Conveying Belt Co., New York, N. Y.
Ruggles Machine Co., Poultney, Vt.
Street Bros. Machine Works, Chattanooga, Tenn.
Yale & Towne Mfg. Co., The, Stamford, Conn.

CALCIUM CARBIDE.

Carbic Manufacturing Company, Duluth, Minn.
Carbolite—American Carbolite Co., Duluth, Minn.
Edgertine Aniline Corp., New York.
National—Air Reduction Sales Co., New York, N. Y.

Ohio Chemical & Mfg. Co., Cleveland, O.
Shawinigan Products Co., New York, N. Y.
Union Carbide & Carbon Corp., New York.

CALCIUM CHLORIDE.

Air Reduction Sales Co., New York, N. Y. (Trade names—Airco-National, Sunlite.)
Harshaw, Fuller & Goodwin Co., Cleveland, O.
Mallinckrodt Chemical Works, Saint Louis, Mo.
Powers—Weightman-Rosengarten Co., Philadelphia, Pa.
Solvay—Semet-Solvay Co., Syracuse, N. Y.
Stauffer Chemical Co., San Francisco, Cal.

CALIPERS, POCKET, SLIDE, VERNIER AND MICROMETER.

Almond, T. R., Mfg. Co., Ashburnham, Mass.
Bernz, Otto, Co., Newark, N. J.
Billings & Spencer Co., Hartford, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I.
Columbia—Columbia Caliper Co., Marietta, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Indicating Calipers Corp., New York, N. Y.
Johnson, Wm., Newark, N. J. (Inside, outside, swing, double and registering).
Johnson's—E. P. Johnson Rule Mfg. Co., Chicago, Ill.
Knauel Tool Works, Rock Island, Ill.
Lufkin Rule Co., The, Saginaw, Mich.
Peck, Stow & Wilcox Co., The, Southington, Conn.
Rustless Rule—The Rustless Rule Co., Inc., Buffalo, N. Y.
Slocomb—J. T. Slocomb Co., Providence, R. I.
Smith & Egge Mfg. Co., The, Bridgeport, Conn.
Starrett, L. S., Co., Athol, Mass.
Union Tool Co., Orange, Mass.

CALORIMETERS.

Ellison—Lewis M. Ellison, Chicago, Ill.
Precision Instrument Co., Newark, N. J.
Riche—Scientific Utilities Co., New York.
Roland Wild—Precision Instrument Co., Newark, New Jersey.
Scimatco—Scientific Materials Co., Pittsburgh, Pa.
Smith—Smith Gas Engineering Co., The, Dayton, O.
Star—Star Brass Mfg. Co., Boston, Mass.

CANDLES, FACTORY, PLUMBERS' AND MINERS'.

Emery Candle Co., The, Cincinnati, O.
Columbia Wax Works, Woodhaven, L. I., N. Y. (Trade names—Columbia, Excello, Leading.)
St. Louis Candle & Wax Co., St. Louis, Mo.
Star—Schaeffer Bros. & Powell Mfg. Co., St. Louis, Mo.
Will & Baumer Candle Co., Syracuse, N. Y.

CANDLES, LUBRICATOR.

Baum's Castorine Co., Rome, N. Y.
Faul, William J., Co., New York, N. Y.

CANS, ASH AND GARBAGE.

Benco—Wilson & Bennett Mfg. Co., Chicago, Ill.
Bliss Co., E. W., Brooklyn, N. Y.
Carco—Wheeling Corrugating Co., Wheeling, W. Va
Caretaker—Willcox Engineering Co., Saginaw, Mich.
Columbian Steel Tank Co., Kansas City, Mo.
Diener, Geo. W., Mfg. Co., Chicago, Ill. (Trade names—Handy Andy, Peerless.)
Dover Safety—Dover Stamping & Mfg. Co., Cambridge, Mass.
Fitts—Frank E. Fitts Mfg. & Supply Co., Boston.
G & G—Gillis & Geoghegan, New York, N. Y.
Handlan—Handlan-Buck Mfg. Co., St. Louis, Mo.
Iron Horse—Rochester Can Co., Rochester, N. Y. (galvanized).
Justrite—Justrite Mfg. Co., Chicago, Ill.
Kantainers—Seamless Steel Products Co., Milwaukee, Wis.
Koven & Bro., L. O., Jersey City, N. J.
Lawco—The F. H. Lawson Co., Cincinnati, O.
New York Standard Ash Can Mfg. Co., Brooklyn, N. Y.
Progressive Metalware Corp., New York, N. Y.
Sexton Can Co., Boston, Mass.
Sharp Rotary—Sharp Rotary Ash Receiver Co., Springfield, Mass.
Steel Basket Co., Cedar Rapids, Ia.
Stephenson Underground—C. H. Stephenson, Lynn, Mass.
Witt Cornice Co., The, Cincinnati, O. (plain and roller).

CANS, CEMENT HOLDING.

Benco—Wilson & Bennett Mfg. Co., Chicago, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.

CANS, EMERY.

Handlan—Handlan-Buck Mfg. Co., St. Louis, Mo.

CANS, EXCELSIOR.

Miller—Miller-Peerless Mfg. Co., Chicago, Ill.
Perfection—Geo. W. Diener Mfg. Co., Chicago, Ill.
Queen—Harker Mfg. Co., Cincinnati, O.

CANS, OIL STORING.

Berger Mfg Co., Canton, O.
Bernz, Otto, Co., Newark, N. J.
Conneaut Can Co., Conneaut, O.
Cream City—Geuder, Paeschke & Frey Co., Milwaukee, Wis.
Eagle Manufacturing Co., Wellsburg, W. Va.
Garrison-Heiland Corp., New York, N. Y.
Gem Manufacturing Company, Pittsburgh, Pa.
Handlan—Handlan-Buck Mfg. Co., St. Louis, Mo.
Iron Horse—Rochester Can Co., Rochester, N. Y.
Johnson Mfg. Co., Urbana, O.
Justrite—Justrite Mfg. Co., Chicago, Ill.
Knapp Mfg. & Supply Co., New York, N. Y.
Lawco—The F. H. Lawson Co., Cincinnati, O.
Lyon Metallic Mfg. Co., Aurora, Ill.
New Delphos Mfg. Co., The, Delphos, N. Y.
Peerless—Miller-Peerless Mfg. Co., Chicago, Ill.
Perfection—Handlan-Buck Mfg. Co., St. Louis, Mo.
Protection—Geo. W. Diener Mfg. Co., Chicago, Ill.
Pyrene—Pyrene Mfg. Co., New York, N. Y.
Queen—Harker Mfg. Co., Cincinnati, O.
Rowe, A. C., & Son, Inc., New York.
Safety Fire Extinguisher Co., The, New York.
Sexton Can Co., Boston, Mass.
W. & B., Benco—Wilson & Bennett Mfg. Co., Chicago, Ill.
P. Wall Mfg. Supply Co., N. S. Pittsburg, Pa.
Wheeling & Crescent—Wheeling Corrugating Co., Wheeling, W. Va.
Whitaker Mfg. Co., The, Chicago, Ill.

CANS, OILY WASTE.

Angle Steel Stool Co., Plainwell, Mich.
Barshal Company, Inc., Cleveland, O.
Benco, W. & B.—Wilson & Bennett Mfg. Co., Chicago, Ill.
Canton Art Metal Co., Canton, Ohio.
Cleveland Wire Spring Co., The, Cleveland, O.
Columbian Steel Tank Co., Kansas City, Mo.
Corco—Wheeling Corrugating Co., Wheeling, W. Va.
Delphos—Delphos Mfg. Co., Delphos, O.
Diener, Geo. W., Mfg. Co., Chicago, Ill. (Trade names, Old Reliable, Perfection.)
Dover Safety—Dover Stamping & Mfg. Co., Cambridge, Mass.
Excelsior—Missouri Lamp & Mfg. Co., St. Louis, Mo.
Fitts—Frank E. Fitts Mfg. & Supply Co., Boston.
Justrite—The Justrite Mfg. Co., Chicago, Ill.
King—The Cincinnati Galvanizing Co., Cincinnati, O
Kirk & Blum Mfg. Co., Cincinnati, O.
Koven, L. O., & Bro., Jersey City, N. J.
Lawco—The F. H. Lawson Co., Cincinnati, O.
Leatheroid—Rogers Fibre Co., Boston, Mass.
Littleford Bros., Cincinnati, O.
Lyon Metallic Mfg. Co., Aurora, Ill.
New Delphos Mfg. Co., The, Delphos, O.
Peerless—Miller-Peerless Mfg. Co., Chicago, Ill.
Pen-Dar—Darby Steel Equipment Co., Philadelphia, Pa.
Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
Progressive Metalware Corp., New York, N. Y.
Pyrene—Pyrene Mfg. Co., New York.
Queen—Harker Mfg. Co., Cincinnati, O.
Rochester Can Co., Rochester, N. Y.
Rowe, A. C., & Son, Inc., New York.
Safety Fire Extinguisher Co., The, New York, N. Y.
Sexton Can Co., Boston, Mass.
Steel Basket Co., Cedar Rapids, Iowa.
Stempel Fire Extinguisher Mfg. Co., St. Louis, Mo.

OILY WASTE CANS
"PERFECTION"

Inspected, approved, and labeled by the Underwriters' Laboratories under supervision of The National Board of Fire Underwriters.

Perfection cans are made of heavy galvanized iron with self-closing cover. No springs. Heavy band iron legs securely riveted, raising body of can four inches from floor.

Geo. W. Diener Mfg. Co.
400-420 Monticello Ave., Chicago, Ill.

SAFETY CANS NON-EXPLOSIVE

"PROTECTION"

Inspected, approved, and labeled by the Underwriters' Laboratories under supervision of The National Board of Fire Underwriters.

Simple—Fool-Proof Non-Destructible

The opening device is protected inside the handle, not exposed as on other types now on the market. It is easier to handle as the handle when grasped to use, acts as a lever. Write for complete catalog of Fire Appliances.

Geo. W. Diener Mfg. Co.

400-420 Monticello Ave., Chicago, Ill.

Underwriters—Handlan-Buck Mfg. Co., St. Louis, Mo
Wall, The P., Mfg. Supply Co., Pittsburgh, Pa.
Walters Mfg. Co., Pittsburgh, Pa.
Wheeling—Wheeling Corrugating Co., Wheeling, W. Va.
Willcox—Willcox Engineering Co., Saginaw, Mich
Witt Cornice Co., The, Cincinnati, O.

CANS, RADIATOR FILLING.

Lawco—The F. H. Lawson Co., Cincinnati, O.

CANS, SAFETY, NON-EXPLOSIVE.

Bridgeport Brass Co., Bridgeport, Conn.
Justrite—Justrite Mfg. Co., Chicago, Ill.
Protection—Geo. W. Diener Mfg. Co., Chicago, Ill.
Peerless—Miller-Peerless Mfg. Co., Chicago, Ill.
Queen—Harker Mfg. Co., Cincinnati, O.
Stempel Fire Extinguisher Mfg. Co., St. Louis, Mo.
Witt Cornice Co., The, Cincinnati, O.

CANS OR RECEPTACLES, REFUSE, SELF-CLOSING.

Bennett Mfg. Co., The, Alden, N. Y. "Economy."
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Queen—Harker Mfg. Co., Cincinnati, O.

CANS, TOTE OR ROLLER.

Diener, Geo. W., Mfg. Co., Chicago, Ill.
Kantainer—Seamless Steel Products Co., Milwaukee, Wis.
Kirk & Blum Mfg. Co., Cincinnati, O.
Mullins Body Corp., Stamping Dept. A., Salem, O.
OT-Steel—Angle Steel Stool Co., Plainwell, Mich.
Standard Fibre Co., Somerville, Mass. (Hard fibre.)
Witt Cornice Co., Cincinnati, O.

CANS, TRUCK.

Iron Horse—Rochester Can Co., Rochester, N. Y.

CANVAS GOODS.

Hettrick Mfg. Co., Toledo, O.
Johnson, J. W., Co., Chicago, Ill.

CAPS, BALL COCK SEAT.

Ampinco—American Pin Co., Waterbury, Conn.
Eastern Specialty Mfg. Co., Scranton, Pa.
Federal-Huber Co., Chicago, Ill.
Frank Bros., New York, N. Y.
Frost Mfg. Co., Kenosha, Wis.
Hansen Brass Mfg. Co., Grand Rapids, Mich.
Peck Bros. & Co., New Haven, Conn.
Waterbury Mfg. Co., Waterbury, Conn.

CAPS, BLASTING.

Atlas Powder Co., Wilmington, Del.
Du Pont de Nemours, E. I., & Co., Wilmington, Del. **Trade names—Du Pont, Gold Medal, Metallic, Silver Medal.**
Hercules Powder Co., Wilmington, Del. **(Electric).**
Western—Equitable Powder Mfg. Co., East Alton, Ill.

CAPS, BOLT, CHINA.

Alliance Vitreous China Co., Alliance, O.
Bay Ridge Specialty Co., Inc., Trenton, N. J.
Hutter, Carl, Inc., New York, N. Y.
Maddock's Thos., Sons Co., Trenton, N. J.
Samsonchina—S. D. Baker Mfg. Co., New York, N. Y.
Universal Sanitary Mfg. Co., New Castle, Pa.

CAPS, DRIVE, WELL CASING.

Barnes Mfg. Co., Mansfield, O.
Chicago Well Supply Co., Chicago, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Illinois Malleable Iron Co., Chicago, Ill.
N. T. C.—National Tube Co., Pittsburgh, Pa.
Pittsburgh Valve & Fittings Co., Barberton, O.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Walworth Company, Boston, Mass.

CAPS, FULLER BALL.

Ampinco—American Pin Co., Waterbury, Conn.
Ayling & Reichert Co., Toledo, O.
Dearborn Brass Co., Cedar Rapids, Ia.
Detroit Sanitary Supply Co., Detroit, Mich.
Eastern Specialty Mfg. Co., Scranton, Pa.
Frank Bros., New York, N. Y.
Frost Mfg. Co., Kenosha, Wis.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
Woodward-Wanger Co., Philadelphia, Pa.

CAPS, HAND HOLE, BOILER.

Key—Key Boiler Equipment Co., East St. Louis, Ill.

CAPS, HOSE.

(See "Fittings, Hose.")

CAPS, PIPE, BRASS.

(See also "Fittings, Brass Pipe.")

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Exeter Brass Works, Exeter, N. H.
General Brass Company, Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
National Brass Mfg. Co., Rochester, N. Y.
Pittsburg Valve & Fittings Co., Barberton, O.
Powell Co., The Wm., Cincinnati, O.
Richardson Brass Co., Edro, Baltimore, Md.
Walworth Company, Boston, Mass.

CAPS, PIPE, IRON.

C—Crane Co., Chicago, Ill.
Essex Foundry, Newark, N. J.
Guilderland Foundry Co., Guilderland, N. Y.
K—Kuhns Bros., Dayton, O.
National Brass Mfg. Co., Rochester, N. Y.
Newbury, Jay H. & Son, Goshen, N. Y.
Newbury Mfg. Co., Monroe, N. Y.
Pittsburg Valve & Fittings Co., Barberton, O.
Ravena Iron Co., Ravena, N. Y.
Walworth Company, Boston, Mass.

CAPS, ROOFING.

Heckman Tool & Mfg. Co., Chicago, Ill. "Heckman."

CAPS AND HATS, SAFETY, MINERS'.

Mine Safety Appliance Co., Pittsburgh, Pa. "Hard Boiled."

CAPS, VENT, SOIL PIPE.

Alabama Pipe Co., Anniston, Ala.
American Foundry & Mfg. Co., St. Louis, Mo.
Bignall Co., The, Medina, N. Y.
Blake Specialty Co., Rock Island, Ill.
Charm—Simplex Boiler Stand Co., Brooklyn, N. Y.
Connor, M. A., Lockport, N. Y.
Dehn's Acme—Compound Injector & Specialty Co., Chicago.
Eafco—Eastern Foundry Co., Boyertown, Pa.
Eclipse—John C. Kupferle Foundry Co., St. Louis, Mo.
Essex Foundry, Newark, N. J.
Guilderland Foundry Co., Guilderland, N. Y.
Gulf States Pipe Corp., Anniston, Ala.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Ideal—Sanitary Company of America, Linfield, Pa.
J. R. S. Specialties Mfg. Co., Inc., New York, N. Y.
Lehigh—Hersh Brothers Co., Allentown, Pa.
Modern Iron Works, Quincy, Ill.
Tri-One—Central Specialty Co., Detroit, Mich.
Wolverine Foundry Co., Detroit, Mich.
Zurn, J. A., Mfg. Co., Erie, Pa. (Trade names—Advance, Gem.)

CAPS FOR VISE JAWS.

Bingham—Prentiss Vise Co., New York, N. Y.

CAR PULLERS.

Stephens-Adamson Mfg. Co., Aurora, Ill.

CAR MOVERS OR PUSHERS.

Advance Car Mover Co., Inc., Appleton, Wis. "Badger Never Slip," "Badger Junior," "Ideal Never Slip," "New Badger."
Atkins, A. A. A.—E. C. Atkins & Co., Indianapolis, Ind.
Atlas—Appleton Car Mover Co., Appleton, Wis.
Caldwell, H. W., & Son Company, Chicago, Ill.
Congo—Conewango Car Co., Warren, Pa.
Easy—E. H. Stafford Mfg. Co., Chicago, Ill.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Hercules—J. W. Hewitt Machine Co., Neenah, Wis.
Ideal—H. B. Sackett Screen & Chute Co., Chicago, Ill.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Link-Belt Company, Chicago and Philadelphia.

The ATLAS Car Mover

NO ENERGY WASTED IN LIFTING

100% Used in Pushing the Car

The chief engineer of tests of one of America's leading railroads, after experiments with various makes of movers, said of the ATLAS: "It will move a car farther in a given number of strokes than any mover, and with less effort."

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Mundy—J. S. Mundy Hoisting Engine Co., Newark, N. J.
New Never Slip—Appleton Car Mover Co., Appleton, Wis.
Richardson & Tallman Mfg. Co., Shelbyville, Ill.
Rowell, G. D., & Son, Appleton, Wis. "Rowell."
Stephens-Adamson Mfg. Co., Aurora, Ill. "S.-A." "Sheldon."
Verona—Verona Tool Works, Pittsburgh, Pa.
Universal—Wentink Mfg. Corp., Menasha, Wis.
Warren Steel Car Co., Warren, Pa.
Weller Mfg. Co., Chicago, Ill.

CARBURETERS, GASOLINE AND OIL.

Ball & Ball—Penberthy Injector Co., Detroit, Mich.
Franklin—The Franklin Oil & Gas Co., Bedford, O.
Sherwood—Sherwood Mfg. Co., Buffalo, N. Y.
Stewart—Detroit Lubrictor Co., Detroit, Mich.
Volz—Volz Engineering Equipment Co., Long Beach, Cal.

CARRIAGES AND TRUCKS, CUTTING AND WELDING.

Meco—Modern Engineering Co., St. Louis, Mo.
Smith Welding Equipment Corp., Minneapolis, Minn

CARRIAGES, JACK.

Norton, O. A., Inc., Boston, Mass.

CARRIAGES, SAW MILL.

(See also "Machinery, Sawmill.")
Hoosier—The Sinker-Davis Co., Indianapolis, Ind.
Wheland Company, The, Chattanooga, Tenn.

CARRIAGES, TENSION, ROPE DRIVE.

Caldwell, H. W., & Son Co., Chicago, Ill.
Dodge Mfg. Corp., Mishawaka, Ind.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Company, Chicago and Philadelphia.
Wood, T. B., Sons Company, Chambersburg, Pa.

CARRIERS, BUCKET AND PAN.

Jeffrey Mfg. Co., Columbus, O.
Peck Carrier—Link-Belt Company, Chicago and Philadelphia.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.

CARRIERS, OIL.

Wall Mfg. Supply Co., P., Pittsburgh, Pa.

CARS, BARROWS, BUGGIES, WAGONS AND TRUCKS, CUPOLA CHARGING.

Akron Barrow Co., Cleveland, O.
Biehl Iron Works, Inc., Reading, Pa.
Chase Fdy. & Mfg. Co., Columbus, O.
Columbiana Boiler Co., Columbiana, O.
Conco—H. D. Conkey Co., Mendota, Ill
Lakewood—The Lakewood Engineering Co, Cleveland, O.
National—Phillips, Doup & Co., Inc., Brooklyn, N. Y.
Pennsylvania Engineering Works, New Castle, Pa.
Weimer Machine Works Co., Lebanon, Pa.

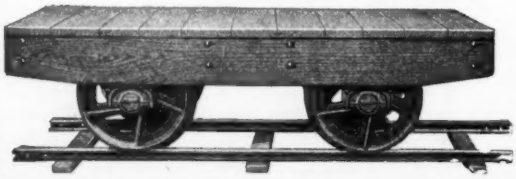
CARS, INDUSTRIAL RAILWAY.

Atlas Car & Mfg. Co., Cleveland, O.
Biehl Iron Works, Inc., The, Reading, Pa.
Chase Foundry & Mfg. Co., Columbus, O. (logging, coal charging, brick drying, cement block and tile, coke oven, transfer, industrial railway, pig iron).
Freeman-Riff Company, Terre Haute, Ind.
Gregg Co., Ltd., Hackensack, N. J.
Insley Mfg. Co., Indianapolis, Ind.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Kalamazoo—Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Koppel Industrial Car & Equipment Co., Koppel, Pa.
Lakewood—Lakewood Engineering Co., Cleveland, O.
Lancaster Iron Works, Inc., Lancaster, Pa.
Lansing Co., Lansing, Mich.
Link-Belt Company, Chicago and Philadelphia.
Northwestern Motor Co., Eau Claire, Wis.
Sackett Screen & Chute Co., Chicago, Ill.

Chase Trucks and Cars

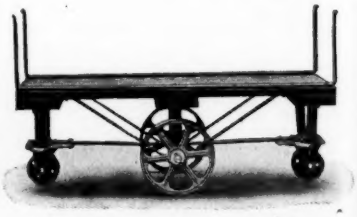
Mill, Factory and Warehouse Trucks, Charging Trucks and Cars, Dump Cars, Industrial Cars, and Complete Industrial Railways.

ASK FOR CATALOG 300



The Chase Foundry & Mfg. Co.

Columbus, Ohio



Made in three distinct types—Samson, Samson, Jr., and Samson Loco.

Made by the first and oldest manufacturers of wood handle car movers in the world.

Switching Power

at a Minimum Cost

That's the real reason for the wide use of Samson Rail Gripper Car Movers. Count the switch tracks in your territory. Every one represents firms who need Samson Car Movers, because they are now indispensable to industry.

Samson Rail Grippers are easier to sell, because they are backed by thirty years of dependable service, and steadily advertised to industry through the leading industrial publications. Investigate this appliance and its sales possibilities today! All Samsons are guaranteed and sold only through dealers.

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a consolidation of

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APPLETON, WISCONSIN

Samson
RAIL GRIPPER

CAR MOVERS

New Badger

No. 5

New Badger car movers incorporate the latest improvements in car mover efficiency. With their principle of compound leverage, a real toggle action, maximum mechanical advantage is secured. Certified malleable castings and straight grained rock maple handles insure long wear. Their special crucible steel spurs grip and stick to the softer side of the rail.

The Advance line includes movers made for all purposes.

Jobbers who desire to give their trade the best, at the same time increasing their sales profits, should write for our free trial selling plan, and liberal discounts.

The Advance Car Mover Co.

Appleton, Wisconsin

New Badger
car movers
"SLIP PROOF"

Sanford-Day Iron Works, Knoxville, Tenn.
Scottdale—Scottdale Machine & Mfg. Co., Scottdale, Pa. (mine and slate).
Smith—The T. L. Smith Co., Milwaukee, Wis.
Watt Mining Car Wheel Co., The, Barnesville, Ohio.
Weimer—Weimer Machine Works Co., Lebanon, Pa

CARS, LOGGING.

American Car & Foundry Co., St. Louis, Mo.
Chase Foundry & Mfg. Co., Columbus, O.
Gregg Co., Ltd., Hackensack, N. J.
Raleigh Iron Wks. Co., Raleigh, N. C.
Union Iron Works Co., Selma, Ala.

CARS, PIG IRON.

Chase Foundry & Mfg. Co., The, Columbus, O.
National—Philips, Doup & Co., Inc., Brooklyn, N. Y.

CARS, TRANSFER.

Chase Foundry & Mfg. Co., Columbus, O.
Gillette—Gillette Roller Bearing Co., Grand Rapids, Mich
Globe—Globe Machinery & Supply Co., Des Moines, Iowa.
Gregg Co., Ltd., Hackensack, N. J.

CARTS, CONCRETE.

Akron—Akron Barrow Co., Cleveland, O.
Boss—American Cement Machine Co., Inc., Keokuk, Iowa.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn.
Cleveland Wheelbarrow & Mfg. Co., Cleveland, O. "Red Star."
Conco—H. D. Conkey Mfg. Co., Mendota, Ill.
Insley Mfg. Co., Indianapolis, Ind.
Jackson Mfg. Co., Harrisburg, Pa.
Keystone—Gray Iron Foundry Co., Reading, Pa.
Lakewood Engineering Co., Cleveland, O.
Lansing Co., Lansing, Mich.
National—Phillips, Doup & Co., Brooklyn, N. Y.
Neversink—Biehl Iron Works, Inc., The, Reading, Pa.
Toledo Wheelbarrow Co., Toledo, Ohio.

CARTS, HAND.

Chattanooga Wheelbarrow Co., Chattanooga, Tenn
Clark, George P., Co., Windsor Locks, Conn.
Fairbanks-Morse & Co., Chicago, Ill.
Lansing Co., Lansing, Mich.
Manistee—S. C. Overpack, Manistee, Mich.
Monitor, Merrimac—F. J. Aubeuf Co., Inc., Oneida, N. Y.
Streich, A. & Bro., Co., Oshkosh, Wis.
Zering Mfg. Co., H., Cincinnati, O.

CARTS, HOSE.

Boyer Fire Apparatus Co., Logansport, Ind "Boyer."
Larkin—Larkin Mfg. Co., Dayton, O
Miller—Miller-Peerless Mfg. Co., Chicago, Ill.
Pirsch, Peter, & Sons Co., Kenosha, Wis.
Robinson—Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Stempel Fire Extinguisher Co., St. Louis, Mo.
Wirt & Knox Mfg. Co., Philadelphia, Pa.

CASES, BOLT, SECTIONAL, BALL BEARING.

Whitman Barnes-Detroit Corp., Detroit, Mich.

CASES, DRILL (FOR SUPPLY HOUSES).

Durabilt Steel Locker Co., Aurora, Ill.
Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Whitman Barnes-Detroit Corp., Detroit, Mich.

CASES, SPACE HEATER MOUNTING.

Russell Electric Co., Chicago, Ill.

CASING HOSE, FLEXIBLE METALLIC.

Cooper—Cooper Flexible Transmission Co., Brooklyn, N. Y.
Federal Metal Hose Corp., Buffalo, N. Y.
Mulconroy Co., Philadelphia, Pa. "Keystone," "Tight Grip."

CASING, STEAM PIPE.

(See "Covering or Casing, Steam Pipe.")

CASING OR TUBING, WELL.

Byers Co., A. M., Pittsburg, Pa.
Central Tube Co., Pittsburg, Pa.
Dempster—Dempster Mill Mfg. Co., Beatrice, Neb (galvanized sheet steel).
M—Monongahela Tube Co., Pittsburg, Pa.
National—National Tube Co., Pittsburgh, Pa.
Reading Iron Co., Reading, Pa.
South Chester Tube Co., Chester, Pa.
Western Pipe & Steel Co., Los Angeles, Cal.
Wheeling Steel Corp., Wheeling, W. Va.
Wheeling Steel Products Co., Wheeling, W. Va.
Youngstown—Youngstown Sheet & Tube Co., The Youngstown, O.

"THE ELKHART"

ELKHART
Cast Iron Blow-Off, Gravel and Drainage Catch Basins in any depths, from 16" to 60" diameters.
Inlet, Outlet and Vapor Vent any size and location, in accordance with Customer's requirements.

Will be pleased to submit prices on Special construction or Extra Heavy Basins on receipt of specifications.

Elkhart Iron Works
ELKHART - INDIANA

CASINGS, ELEVATOR, STEEL & WOOD.

Caldwell, H. W., & Son Co., Chicago, Ill.
Latimer, Robert L., & Co., Philadelphia, Pa.
Link-Belt Company, Chicago and Philadelphia.
Weller Mfg. Co., Chicago, Ill.

CASTERS, TRUCK.

(See also "Wheels and Casters, Truck.")

Bond Foundry & Machine Co., Manheim, Pa.
Hamilton Caster & Mfg. Co., Hamilton, O.
Mullins Body Corporation, Salem, O.

CASTINGS, SEWER.

American Foundry & Mfg. Co., St. Louis, Mo.
Central Foundry Co., New York, N. Y.
Clark, H. W., Co., Mattoon, Ill.
Columbian Iron Works, Chattanooga, Tenn.
Indiana Foundry Co., Indiana, Pa.
Lynchburg Foundry Co., Lynchburg, Va.
Modern Iron Works, Quincy, Ill.
Reading Foundry & Sup. Co., Reading, Pa.
South Bend Foundry Co., South Bend, Ind.
Stuart Fdy. Co., Detroit, Mich.
Toronto Foundry & Machine Co., Inc., Toronto, O.

CATALOGS COMPILED AND PRINTED.

Brooklyn Daily Eagle, Catalog Department, Brooklyn, N. Y.
Cuneo Catalog Service Company, The, Chicago, Ill.
Donnelley, R. R., & Sons Co., Chicago, Ill.

CATCH BASINS, CAST IRON, BLOW-OFF.

American Foundry & Mfg. Co., St. Louis, Mo.
Crane Co., Chicago, Ill.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
Economy Pumping Machinery Co., Chicago, Ill.
Elkhart—Elkhart Iron Works, Elkhart, Ind.
Holmberg Steam Trap Co., The, Lindsborg, Kans.
Leader Iron Works, Decatur, Ill.

CATCH BASINS, SEWER.

American Foundry & Mfg. Co., St. Louis, Mo.
Barber Mfg. Co., The, Ashtabula, O.
Canton Foundry & Machine Co., The, Canton, O.
Casey-Hedges Co., The, Chattanooga, Tenn.
Clark, H. W., Co., Mattoon, Ill.
Clow, James B., & Sons, Chicago, Ill.
Concord Foundry & Machine Co., Concord, N. H.

Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Elkhart—Elkhart Iron Works, Elkhart, Ind.
Estabrook's, R., Sons, South Boston, Mass.
Fee & Mason Mfg. Co., New York, N. Y.
Geneva Foundry Corp., Geneva, N. Y.
Guenther Foundry Co., The, Columbus, O.
Gulf States Pipe Corp., Anniston, Ala.
Hoffmann, B., Mfg. Co., Milwaukee, Wis.
Illinois Malleable Iron Co., Chicago, Ill.
Kalamazoo Foundry & Machine Co., Kalamazoo, Mich.
Mott, J. L., Iron Works, The, Trenton, N. J.
Murphy Specialty Co., Milwaukee, Wis.
New York Central Iron Works Co., Inc., Hagerstown, Md.
Swett, A. L., Iron Works, Medina, N. Y.
Thacher Propeller & Foundry Corp., Albany, N. Y.
Wade Iron Sanitary Mfg. Co., Chicago, Ill.

CEMENT, ASBESTOS AND MAGNESIA FOR BOILERS AND FURNACES.

(See also "Covering, Asbestos & Magnesia, Pipe and Boiler.")

Acme, Asbestos—Acme Asbestos Covering & Flooring Co., Chicago, Ill.
American Seal—Connors Paint Mfg. Co., The William, Troy, N. Y.
Armstrong Cork Co., and Armstrong Cork & Insulation Co., Pittsburgh, Pa.
Asbestos Products Co., Chicago, Ill.
Atlas Mineral Products Co., Allentown, Pa.
Brickline Firelte, J. M. Acid Proof—Johns-Manville, Inc., New York.
Camco—Chicago Asbestos Mfg. Co., Chicago, Ill.
Capitol—U. S. Radiator Corp., Detroit, Mich.
Carey—The Philip Carey Mfg. Co., Cincinnati, O.
Central—Central Asbestos & Magnesia Co., Chicago, Ill.
Crawford, L. M., Asbestos Co., Denver, Colo.
Crown—W. H. Colebrook's Sons, Syracuse, N. Y.
Dambabbit, Tharco—The Armstrong Co., Detroit, Mich.
Detroit—C. Stanley Morgan, Detroit, Mich.
Dixon Crucible Co., Joseph, Jersey City, N. J.
Durobestos—Albion Mfg. Co., Seattle, Wash.
Eastern Asbestos Co., Providence, R. I.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Eureka—The Otley Paint Mfg. Co., Chicago, Ill.
Fix-It—W. H. Colebrook's Sons, Syracuse, N. Y.
Franklin Mfg. Co., Franklin, Pa.
Garco—General Asbestos & Rubber Co., Charleston, S. C.
Glidden Co., The, Cleveland, O.
Hetzel's—Estate of J. G. Hetzel, Newark, N. J.
Johns-Manville Corporation, New York, N. Y. "J. M. High Temperature."
K. & M., Ambler, Asbestos—Keasbey & Mattison Co., Ambler, Pa.
Mapco—Mid-West Asbestos Products Co., Chicago, Ill.
National Asbestos Mfg. Co., Jersey City, N. J.
Nemo—Smith & Kanzler, Elizabeth, N. J.
Newark Asbestos Products Co., Newark, N. J.
Pecora—Pecora Paint Co., Philadelphia, Pa.
R. M. C.—Richards Mfg. Co., Grand Rapids, Mich.
Rutland—Rutland Fire Clay Co., Rutland, Vt.
Sall Mountain Co., Chicago, Ill.
Standard Asbestos Mfg. Co., Chicago, Ill.
Standard Chemical Corp., Kalamazoo, Mich.
Union Asbestos & Rubber Co., Chicago, Ill.
Union Rubber & Asbestos Co., Trenton, N. J.
Vitrex—Johns-Manville, Inc., New York, N. Y.
Watson Co., H. F., Erie, Pa.
Western Asbestos & Mfg. Co., Denver, Colo.

CEMENT, BELT.

Alexander—Alexander Bros., Inc., Philadelphia, Pa.
Ament's—H. B. Ament Glue Co., Louisville, Ky.
Anderson Chemical Co., Passaic, N. J.
Apex—W. H. Salisbury & Co., Chicago, Ill.
Aqua—S. R. Sikes Co., Minneapolis, Minn.
Balata—Victor-Balata & Textile Belting Co., New York, N. Y.
Bickford & Francis Belting Co., Buffalo, N. Y.
Bradford—Bradford Belting Co., Cincinnati, O.
Buffalo—Buffalo Belt Dressing Co., Buffalo, N. Y.
C C C—Corliss Supply & Mfg. Co., St. Louis Mo.
Chicago Belting Co., Chicago, Ill. Trade names—Reliance, Sea Lion.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Clean Quality—Charlotte Leather Belting Co., Charlotte, N. C.
Cocheco—I. B. Williams & Sons, Dover, N. H.
Detroit Oak Belting Co., Detroit, Mich.
DuPont de Nemours, E. I., & Co., Parlin, N. J. (Trade names—Duco, Viscolac.)
Eagle Counter & Leather Co., Cincinnati, O.
Eclipse Specialty Mfg. Co., Chicago, Ill.
Eternity—Burr Oak Belting Co., Cincinnati, O.
Flex-O—Cross Bros. Co., Inc., Rochester, N. Y.
Franklin Belting Co., York, Pa.
Graton & Knight Co., Worcester, Mass. "Neptune," "Royal Worcester."
Hercules—Hercules Belt Lace Co., Waukegan, Ill.
Hippo, U. S.—Reed & Duecker, Memphis, Tenn.
Hold Fast—George Callahan & Co., New York, N. Y
Hoyt—Edward R. Ladew Co., Inc., New York, N. Y.
Jewell—Jewell Belting Co., Hartford, Conn.
Le Page's—Russia Cement Co., Gloucester, Mass.
L X—Manufacturers Belt Hook Co., Chicago, Ill.
McLeod Leather & Belting Co., Greensboro, N. C.
Marine—McCauley Belting Co., Chicago, Ill.
Martin's—International Glue Co., Boston, Mass.
Milwaukee Leather Belting Co., Milwaukee, Wis. (Trade names—Beaver, Stik Tite.)
Minute—Oleum Products Co., Scranton, Pa.
Moloney Belting Co., Chicago, Ill. (Trade names—"M" [regular]; Whale [waterproof].)
Monarch—The Bradford Belting Co., Cincinnati, O
Mulconroy Co., Inc., Philadelphia, Pa.
Ne-Pac—Capen Belting & Rubber Co., St. Louis, Mo.
Old Reliable—Ellert Mfg. Co., C. H., Evansville, Ind
Page Belting Co., Concord, N. H.
Palmer's Perfect—N. Palmer & Co., Bridgeport, Conn.
Pilot—Webb Belting Co., Kansas City, Mo.
Pulmor—Pulmor Belt Mfg. Co., Fort Wayne, Ind.
Quick Ser. Submarine—Holyoke Belting Co., Holyoke, Mass.
Rahmann & Co., George, New York, N. Y.
F. Raniville Co., Grand Rapids, Mich. (Trade names—Leather-to-Metal, Raniville, Star (not waterproof), Wateride.)
Reinhold Belting & Strap Co., Brooklyn, N. Y.
Reliance, Sea Lion—Chicago Belting Co., Chicago, Ill.
Rhoads, J. E., & Sons, Philadelphia.
Schieren, Chas. A., & Co., New York. (Trade names—Schieren's [regular], Duxbak [waterproof].)
Seal—W. H. Salisbury & Co., Inc., Chicago, Ill.
Shield—McCauley Belting Co., Chicago, Ill.
Stickfast—MacWatty Belting Co., Providence, R. I.
Superior—Grand Rapids Belting Co., Grand Rapids, Mich.
Ulmer Leather Co., The, Norwich, Conn. (Trade names—Alpha, Emral, Mohegan, Ulco.)
United Belt Mfg. Co., St. Louis, Mo. (Trade names—Royal Stag, Sea King.)
Victor—New York Leather Belting Co., New York.
Warren—Warren Belting Co., Worcester, Mass.
Warren Co., The, Niles, Mich.
Waterproof—Grand Rapids Belting Co., Grand Rapids, Mich.
Wetite—New York Leather Belting Co., New York.

CEMENT, BOILER FRONT.

Airtite—Paul B. Huyette Co., Inc., Philadelphia, Pa.
Bestix—Jos. W. Hays Corp., Michigan City, Ind.
Federal—The Federal Process Co., Cleveland, O.
Frazer—Frazer Paint Co., Detroit, Mich.
Hosmers—G. A. Hosmer Co., Buffalo, N. Y.

CEMENT, DISC WHEEL.

Gardner—Gardner Machine Co., Beloit, Wis.
Helmet—Chas H. Besly & Co., Chicago, Ill.
Marathon—Walls Sales Corp., New York.

CEMENT, FIRE BRICK.

B. K. Plastic—The Boiler Kote Co., Chicago, Ill.
Cokalite—Cokal Stoker Corp., Chicago, Ill.
Archnu, Furnaseal—Laclede-Christy Clay Products Co., St. Louis, Mo.
Inferno—Codd Tank & Specialties Co., Baltimore, Md.
PeroSeal—Perolin Co. of America, Chicago, Ill.
Protectocoat—Standard Chemical Corp., Kalamazoo, Mich.
Sil-O-Cel—Celite Products Co., Chicago, Ill.
Vacuum—The Klein Mfg. Co., Cleveland, O.

CEMENT, GASKET.

Akron Metallic Gasket Co., Akron, O.

CEMENT, HIGH TEMPERATURE.

Archnu, Furnaseal—Laclede-Christy Clay Products Co., St. Louis, Mo.
Armstrong Cork & Insulation Co., Pittsburgh, Pa.
Atlas Mineral Products Co., The, Allentown, Pa.
Botfield Refractories, Philadelphia, Pa.
The Buckeye Products Co., Cincinnati, Ohio.
Hytempite—Quigley Furnace Specialties Co., Inc., New York.
Johns-Manville Corporation, New York, N. Y.
Kalorite—Oleum Products Co., Scranton, Pa.
Metal Lubricants Co., Chicago, Ill.
Pecora—Pecora Paint Co., Chicago, Ill.
Quigley Furnace Specialties Company, Inc., New York, N. Y.
Sil-O-Cel—Celite Products Co., Chicago, Ill.

For over twenty years **Red Cross Compound** has been used in making pipe joints for all classes of service. It has never failed to produce perfect joints, even when used where other materials have failed. It is now in use from the Atlantic to the Pacific and in foreign countries, for the reason that it gives results never given by any other material.

Red Cross Compound is different from other materials. It never hardens in the joint. Never skins over in the can. There is no waste, the last particles left in the can will do the same perfect work as when the can was first opened. It is always ready for immediate use and never becomes too old to produce the same perfect results. It is put up in sizes to meet every need and every can is warranted.

If your jobber does not have it, write us.

THE EDGECOMBE COMPANY
Cuyahoga Falls, Ohio

CEMENT (AND FILLER) FOR IRON AND STEEL.

Auto-Gloss—Pittsburgh Plate Glass Co., Patton-Pitcairn Div., Newark, N. J.
Chapin, W. R., Co., Indianapolis, Ind. "Cinch."
Clark Cast Steel Cement Co., The, Shelton, Conn. (Trade names—Cast Steel, Shelton, Steamtite.)
Cooper Sanitary Mfg. Co., Philadelphia, Pa.
Diamond—Diamond Expansion Bolt Co., New York, N. Y.
Eureka—Otley Paint Mfg. Co., Chicago, Ill.
Fill-In—J. W. Paxson Co., Philadelphia, Pa.
Goetze's—Goetze Gasket & Packing Co., New Brunswick, N. J.
Holetite—The Strong Machinery & Supply Co., New York.
Johns-Manville Corporation, New York. Trade names—Leak-No, Ferro.
Metaloid—Strong Machinery & Supply Co., New York.
Pecora Paint Co., Philadelphia, Pa.
Rice's—United States Gutta Percha Paint Co., Providence, R. I.
Scorfill—Smith Welding Equipment Corp., Minneapolis, Minn.
Smooth-On—Smooth-On Mfg. Co., Jersey City, N. J.
Steel-Coat—Stone & Tar Products Co., Brooklyn, N. Y.
X-Cel-All—Shanafelt Mfg. Co., Canton, O.

CEMENT, LAUNDRY TRAY.

American Seal—Wm. Connors Paint Mfg. Co., Troy, N. Y.
Cleveland Wash Tray Mfg. Co., Cleveland, O.
Wesley, Chas., Co., Chicago, Ill.

CEMENT (OR COMPOUND) PIPE JOINT, PLUMBERS', GAS AND STEAMFITTERS'.

Airtite—Knapp Paint Co., Poultney, Vt.
American Seal—The Wm. Connors Paint Mfg. Co., Troy, N. Y.
Arlington Mfg. Co., Canton, O.
Bernz Co., Otto, Newark, N. J.
Blue Ribbon—The Jobbers Mfg. Co., Chicago, Ill.
Capitol—U. S. Radiator Corp., Detroit, Mich.
Capitol—Watson-Penfield Corp., New Bedford, Mass.
Cast Steel, Steamtite—The Clark Cast Steel Cement Co., Shelton, Conn.
Chamberlin & Johnston, Pittsburgh, Pa.
Colebrook's—W. H. Colebrook's Sons, Syracuse, N. Y.
Connors, Wm., Paint Mfg. Co., Troy, N. Y.
Cooper Sanitary Mfg. Co., Philadelphia, Pa.
Crane—Crane Co., Chicago, Ill.
Crawford—F. W. Webb Mfg. Co., Boston, Mass.
Croll, Jesse G., & Son, Philadelphia, Pa. "Croll's Pipe Dope."
Deegans—Chard & Howe, New York, N. Y.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Edgecombe Company, The, Cuyahoga Falls, Ohio.
Eureka—The Otley Paint Mfg. Co., Chicago, Ill.
Excelsior—The Strong Machinery & Supply Co., New York.
Filed's—General Fire Extinguisher Co., New York, N. Y.
Filtite—Pacific Flush Tank Co., Chicago, Ill.
Frazer—Frazer Paint Co., Detroit, Mich.
Gasoltite—Thread Tight Co., New York, N. Y.
Genasco—Barber Asphalt Co., Philadelphia, Pa. wick, N. J.
Goetze—Goetze Gasket & Packing Co., New Bruns-
Good—Good Mfg. Co., Inc., New York, N. Y.
Grapho—General Mfg. Co., Oil City, Pa.
Hagan, Geo. J. Co., Pittsburgh, Pa.
Hause—Chas. F. Hause Mfg. Co., Inc., Omaha, Neb.
Hercules Powder Co., Wilmington, Del.
Hermatic Company, Philadelphia, Pa.
Hetzel's—Estate of J. G. Hetzel, Newark, N. J.
Hosmer—G. A. Hosmer Co., Buffalo, N. Y.
Johns-Manville Corporation, New York, N. Y.
Jointite—Pacific Flush Tank Co., Chicago, Ill.
Kelly—Kelly Graphite Mills, New York, N. Y.
Key—Key Boiler Equipment Co., East St. Louis, Ill.
Leadite—The Leadite Co., Inc., Philadelphia, Pa.
Leak-Cure—Leak Cure Metal Cement Co., New York, N. Y.
Manganesite—The Williams & Wells Co., New York, N. Y.
Metaloid—Strong Machinery & Supply Co., New York.
Modern Mfg. Co., The, Cleveland, O.
National—Prier Brass Mfg. Co., Kansas City, Mo.
No Leaks—The Boyer Chemical Laboratory Co., Chicago, Ill.
Nubian Paint & Varnish Co., The, Chicago, Ill.
Old Reliable—George Callahan & Co., New York, N. Y.
Peerless—John J. McHale, South Orange, N. J.
Pierce Mfg. Co., Bridgeport, Conn.
Plumbine—Stone & Tar Products Co., Brooklyn, N. Y.
Red Cross—The Edgecombe Co., Cuyahoga Falls, O.
Red Rustless—Eagle Paint & Varnish Co., Pittsburgh, Pa.
Rice—Rice Improved Valve & Mfg. Co., Indianapolis, Ind.
Ruberoid—The Ruberoid Co., New York, N. Y.
Rutland—Rutland Fire Clay Co., Rutland, Vt.
Securo—R. M. Starbuck & Sons, Hartford, Conn.
Sexauer, J. A., Mfg. Co., New York.
Shur-Tite—The Shur-Tite Mfg. Co., Norwood, O.
Smooth-On—Smooth-On Mfg. Co., Jersey City, N. J.
Starbuck—R. M. Starbuck & Sons, Hartford, Conn.
Superflake—Superior Flake Graphite Co., Chicago, Ill.
Super-Seal-Tite—Blue Seal Chemical Co., Roselle, N. J
Thread-Tight—Thread Tight Co., New York, N. Y.
Tite-Joint—Kemoshyne Products, Inc., Camden, N. J.
Top Line—Reeves Specialty Co., Denver, Colo.
Tyte-Unyte—J. C. Whitlam Mfg. Co., Wadsworth, O.
U. S. G. Co.'s—United States Graphite Co., Saginaw, Mich.
Walworth Company, Boston, Mass.
Webco—F. W. Webb Mfg. Co., Boston, Mass.
Whiz—The R. M. Hollingshead Co., Camden, N. J.

CEMENT, PULLEY COVER.

Ament's—H. B. Ament Glue Company, Louisville, Ky.
Apex—W. H. Salisbury & Co., Inc., Chicago, Ill.
Eclipse Specialty Mfg. Co., Chicago, Ill.
Graton & Knight Co., Worcester, Mass.
Leather-to-Metal—F. Raniville Co., Grand Rapids, Mich.
Monarch Belting Co., The, Cleveland, O.

CEMENT, PULLEY SURFACING.

(See Covering Pulley.)

CEMENT, ROOFING.

Acme—The Acme Mfg. Co., Cleveland, O.
American Seal—Wm. Connors Paint Mfg. Co., Troy, N. Y.
Antiaqua—Union Fibre Co., Winona, Minn.
Armstrong Cork Co., and Armstrong Cork & Insulation Co., Pittsburgh, Pa.
Bayerson—Bayerson Oil Works, Erie, Pa.
Bramco—Baltimore Roofing & Asbestos Mfg. Co., Asbestos, Md.
Carey—The Philip Carey Mfg. Co., Cincinnati, O.
Crown—W. H. Colebrook's Sons, Syracuse, N. Y.
Durability Roof Coating—Stone & Tar Products Co., Brooklyn, N. Y.
Duroseal—Albion Mfg. Co., Seattle, Wash.
Egyptian—National Roofing & Paint Co., Tonawanda, N. Y.

Federal Elastic—Federal Process Co., Cleveland, O.
Flex-a-tile—Heppes-Nelson, Roofing Co., Chicago, Ill.
Flex-A-Tile—The Richardson Co., Lockland, O.
Flexible—H. F. Watson, Erie, Pa.
Flintkote—The Flintkote Co., Boston, Mass.
Genasco—The Barber Asphalt Co., Philadelphia, Pa.
Graphilatum—The Klein Mfg. Co., Cleveland, O.
Griffin Roofing Co., New York, N. Y.
Hetzel's—Estate of J. G. Hetzel, Newark, N. J.
Liberty—Carter Paint Co., Liberty, Ind.
Lux, L. A. Co., Cleveland, Ohio.
National Roofing & Paint Co., Tonawanda, N. Y.
Old Reliable—Bayerson Oil Wks., Erie, Pa.
Paria—Warren Chemical, Div. The Barrett Co., New York.
Pecora Paint Co., Philadelphia, Pa.
Plastic Seal—Walters Mfg. Co., Pittsburgh, Pa.
Protex, Supercote—Garland Co., Cleveland, C.
Roof-Shield—Ensign Refining Co., Cleveland, O.
Rubber—George Callahan & Co., New York, N. Y.
Ruberoid—The Ruberoid Co., New York, N. Y.
Rutland—Rutland Fire Clay Co., Rutland, Vt.
Sero Specialty Co., Cleveland, O.
Standard—Standard Chemical Corp, Kalamazoo, Mich.
Stone & Tar Products Co., Brooklyn, N. Y. (Trade names—Elastic Roof Cement, Durability Roof Coating.)
Tharco—The Armstrong Co., Detroit, Mich.
Tocoseal—Tropical Paint & Oil Co., Cleveland, Ohio.
Vulcan-Rooftite—American Lastite Co., Chicago, Ill.
Wheeling Corrugating Co., Wheeling, W. Va.
World Neverleak—The World Refining Co., Easton, Pa.

CEMENT, RUBBER.

Goodrich, B. F., Rubber Co., Akron, O.
Maxtic Belting & Packing Co. Wellesley Hills, Mass.
Montgomery Bros., Inc., Philadelphia, Pa.
Mulconroy Co., Inc., Philadelphia, Pa. "Victor."
New York Belting & Packing Co., New York, N. Y.
Salisbury, W. H., & Co., Inc., Chicago, Ill. (Trade names—Handy, Para, Railroad.)

CEMENT (OR COMPOUND) SEWER PIPE.

G-K—Atlas Mineral Products Co., Allentown, Pa.
Sewetite—Warren Chemical Div., The Barrett Co., New York.

CEMENT, SOIL PIPE.

Cast Steel—Clark Cast Steel Cement Co., Shelton, Conn.
G-K—Atlas Mineral Products Co., Allentown, Pa.
Smooth-On Mfg. Co., Jersey City, N. J.
Tharco—Armstrong Co., Detroit, Mich.

CENTERS, BENCH.

Brown & Sharpe Mfg. Co., Providence, R. I.
Morse—Morse Twist Drill & Machine Co., New Bedford, Mass.
Sundstrand Machine Tool Co., Rockford, Ill. "Rockford."

CENTERS, HIGH SPEED.

Red E—Ready Tool Co., Bridgeport, Conn.

CENTERS, INDEX.

Abrasive Machine Tool Co., East Providence, R. I.
Browne & Sharp Mfg. Co., Providence, R. I.
Carter & Hakes Mach. Co., Winsted, Conn. (small)
Cincinnati Planer Co., Cincinnati, O.
Detroit Twist Drill Co., Detroit, Mich.
Dickow's—Fred C. Dickow Machinery Co., Chicago, Ill.
Duwell—J. A. Finley Co., Allston, Mass.
Eastern Tube & Tool Co., Inc., Brooklyn, N. Y.
Fay & Scott, Dexter, Me.
Goodell-Pratt Co., Greenfield, Mass.
Knight—W. B. Knight Machinery Co., St. Louis, Mo
Morse Twist Drill & Machine Co., New Bedford, Mass.
Neff—Paschall Tool Co., Long Beach, Cal.
Simmons Machine Co., Inc., Albany, N. Y.
Stark Tool Co., Waltham, Mass.

CENTERS, LATHE, INSERTED POINT.

Detroit Twist Drill Co., Detroit, Mich.
Goodell-Pratt Co., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Nielsen, Inc., Lawton, Mich.

CENTERS, PLANER.

Cincinnati Planer Co., The, Cincinnati, O.

CENTRIFUGALS.

American Tool & Machine Co., Boston, Mass.
Lancaster Iron Works, Inc., Lancaster, Pa.
Tolhurst—Tolhurst Machine Wks., Troy, N. Y.
Weston—Cresson-Morris Co., Philadelphia, Pa.

CESSPOOLS, BRASS.

Acheson—Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Boosey—Greenwood Mfg. Co., Detroit, Mich.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
Eclipse—John C. Kupferle Foundry Co., St. Louis, Mo.
Essex Foundry, Newark, N. J.
Exeter Brass Wks., Exeter, N. H.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Fee & Mason Mfg. Co., New York, N. Y.
Fries & Co., Buffalo, N. Y.
Glenn Mfg. Co., St. Charles, Ill.
Hajoca Corporation, Philadelphia, Pa.
Haydenville Co., The, Haydenville, Mass.
Hoffmann-Billings Mfg. Co., Milwaukee, Wis.
Humphryes Mfg. Co., The, Mansfield, O.
J. R. S. Specialties Mfg. Co., Inc., The, New York, N. Y.
Jenkins Mfg. Co., Bloomfield, N. J.
Josam Mfg. Co., Michigan City, Ind.
Kokomo Brass Works, Kokomo, Ind.
Modern Iron Works, Quincy, Ill.
Mott, J. L., Iron Works, Trenton, N. J.
Mueller Co., Decatur, Ill.
Nelson, N. O., Mfg. Co., St. Louis, Mo.
P. B. W.—Pioneer Brass Works, Indianapolis, Ind.
Peck Bros. & Co., New Haven, Conn.
Phoenix Brass Foundry, Irvington, N. J.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Reading Foundry & Supply Co., Reading, Pa.
The Richmond Foundry & Mfg. Co., Inc., Richmond, Va.
Rundle Spence Mfg. Co., Milwaukee, Wis.
Salem Brass & Iron Mfg. Co., Bridgeton, N. J.
Sanitas Mfg. Co., Boston, Mass.
Speakman Co., Wilmington, Del.
Street & Kent Mfg. Co., The, Chicago, Ill.
Trenton Brass & Machine Co., The, Trenton, N. J.
Union Metal Works, Chelsea, Mass.

CESSPOOLS, CAST IRON.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Alabama Pipe Co., Anniston, Ala.,
American Foundry & Mfg. Co., St. Louis, Mo. (Trade names—Government, Star, Willetts.)
Asco—Atchison Specialty Co., Kansas City, Mo.
Badger—Modern Iron Works, Quincy, Ill.
Barnes Mfg. Co., The, Mansfield, O.
Beggs Pipe & Foundry Co., Birmingham, Ala.
Bignall Co., The, Medina, N. Y.
Brayman Drain Co., New York, N. Y.
Casey-Hedges Co., The, Chattanooga, Tenn.
Central Foundry Co., New York, N. Y.
Chicago Pipe Co., Chicago, Ill.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
East Penn Foundry Co., Macungie, Pa.
Eclipse—John C. Kupferle Foundry Co., St. Louis, Mo.
Estabrook's, R., Sons, South Boston, Mass.
Fee & Mason Mfg. Co., New York, N. Y.
Glenn Mfg. Co., St. Charles, Ill.
Guilderland Foundry Co., Guilderland, N. Y.
Gulf States Pipe Corp., Anniston, Ala.
Hajoca Corporation, Philadelphia, Pa.
Hammond Iron Co., Birmingham, Ala.
Josam Mfg. Co., Michigan City, Ind.
J. R. S. Specialties Mfg. Co., Inc., New York, N. Y.
Jones Hollow Ware Co., Baltimore, Md.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Modern Iron Works, Quincy, Ill. (Trade names—M. I. W., Willett.)
Newbury Mfg. Co., Monroe, N. Y.
Reading Foundry & Supply Co., Reading, Pa.
Richmond Fdy. & Mfg. Co., The, Richmond, Va.
Salem Brass & Iron Co., Bridgeton, N. J.
Sanitary Company of America, Linfield, Pa. (Rain leader, bell trap, hydrant, stable, sanitary.)
Swett Iron Works, A. L., Medina, N. Y.
Treaty Co., The, Greenville, O.
Wade Iron Sanitary Mfg. Co., Chicago, Ill.
Washington Metal Products Co., The, Washington C. H., Ohio.
Willett's—Wolff Mfg. Corp., Chicago, Ill.
Wolverine Foundry Co., Detroit, Mich.

CESSPOOLS, HYDRANT.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
Casey-Hedges Co., The, Chattanooga, Tenn.
Eclipse—John C. Kupferle Foundry Co., St. Louis, Mo.
Essex Foundry, Newark, N. J.
Glenn Mfg. Co., St. Charles, Ill.
Hajoca Corporation, Philadelphia, Pa.
Jones Hollow Ware Co., Baltimore, Md.
Liberty—Humphryes Mfg. Co., The, Mansfield, O.
Sanitary Company of America, Linfield, Pa.

CESSPOOLS, RAIN LEADER.

Ideal, Sanitary—Sanitary Company of America, Linfield, Pa.

CESSPOOLS, STABLE.

Advance—J. A. Zurn Mfg. Co., Erie. Pa.
Alabama Pipe Co., Anniston, Ala.
American Foundry & Mfg. Co., St. Louis, Mo.
Barber Mfg. Co., Ashtabula, O.
Bignall Co., Medina, N. Y.
Brayman Drain Co., New York, N. Y.
Casey-Hedges Co., The, Chattanooga, Tenn.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
Eclipse—John C. Kupferle Foundry Co., St. Louis, Mo.
Glenn Mfg. Co., St. Charles, Ill.
Gulf States Pipe Corp., Anniston, Ala.
Hajoca Corporation, Philadelphia, Pa.
Humphryes Mfg. Co., Mansfield, O.
Jones Hollow Ware Co., Baltimore, Md.
Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Johnson, J. D., Co., Philadelphia, Pa. (Trade names —Johnson, Lynn, Saxon.)
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
M. I. W.—Modern Iron Works, Quincy, Ill.
Nelson, N. O., Mfg. Co., St. Louis, Mo.
Reading Foundry & Supply Co., Reading, Pa.
Saaco—Sanitary Co. of America, Linfield, Pa.
Salem Brass & Iron Mfg. Co., Bridgeton, N. J.
Swett, A. L., Iron Works, Medina, N. Y.
Wade Iron Sanitary Mfg. Co., Chicago, Ill.
Wolverine Foundry Co., Detroit, Mich.

CHAIN, AGRICULTURAL.

American Chain Co., Inc., Bridgeport, Conn.
Bridgeport Chain Co., Bridgeport, Conn.
Chain Products Co., The, Cleveland, O.
Link-Belt Company, Chicago and Philadelphia.
Howe Chain Company, Muskegon, Mich.
Mundorf Chain Works, York, Pa.
Rex—Chain Belt Company, Milwaukee, Wis.
Taylor, S. G., Chain Co., Chicago, Ill.
United States Chain & Forging Co., Pittsburgh, Pa.
Weller Mfg. Co., Chicago, Ill.

CHAIN, ANTI-SKID.

Chain Products Co., The, Cleveland, O. "Hodell."
Columbus-McKinnon Co., Tonawanda, N. Y.
Cleveland Chain & Mfg. Co., Cleveland, Ohio.
Taylor, S. G., Chain Co., Chicago, Ill.
United States Chain & Forging Co., Pittsburgh, Pa.
Weed—American Chain Co., Bridgeport, Conn.

CHAIN, ANTI-SPREADER.

American Chain Co., Bridgeport, Conn.
Bridgeport Chain Co., The, Bridgeport, Conn.
Chain Products Co., The, Cleveland, O.
Cleveland Chain & Mfg. Co., Cleveland, O.
C. C. and Hercules—The Columbus McKinnon Chain Co., Tonawanda, N. Y.
Taylor, S. G., Chain Co., Chicago, Ill.
United States Chain & Forging Co., Pittsburgh, Pa

CHAIN, BACK.

Elwel—American Chain Co., Inc., Bridgeport, Conn.
United States Chain & Forging Co., Pittsburgh, Pa.
Woodhouse Chain Works, Trenton, N. J.

CHAIN, BEAD.

Ampinco—American Pin Co., Waterbury, Conn.
Bead Chain Mfg. Co., Bridgeport, Conn.
Frost Mfg. Co., Kenosha, Wis.
Wiseco—J. B. Wise, Inc., Watertown, N. Y.

CHAIN, BLOCK.

American Chain Co., Bridgeport, Conn.
Carr, J. B., Co., Troy, N. Y.
C. C. and Hercules—Columbus McKinnon Chain Co. Tonawanda, N. Y.
Cleveland Chain & Mfg. Co., Cleveland, O.
Diamond Chain & Mfg. Co., Indianapolis, Ind.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Link-Belt Company, Chicago and Philadelphia.
Newhall Chain Forge & Iron Co., New York, N. Y.
Taylor, S. G., Chain Co., Chicago, Ill.
United States Chain & Forging Co., Pittsburgh, Pa.
Wilcox, Crittenden & Co., Inc., Middletown, Conn.
Woodhouse Chain Works, Trenton, N. J.
Yale & Towne Mfg. Co., New York, N. Y.

CHAIN, BOOM AND RAFTING.

American Chain Co., Bridgeport, Conn.
Carr, J. B., Co., Troy, N. Y.
C. C. and Hercules—Columbus McKinnon Chain Co., Tonawanda, N. Y.
Cleveland Chain & Mfg. Co., Cleveland, O.
Krein Chain Co., The, Wapakoneta, O.
Taylor, S. G., Chain Co., Chicago, Ill.
United States Chain & Forging Co., Pittsburgh, Pa.
Woodhouse Chain Works, Trenton, N. J.

CHAIN, BRASS AND BRONZE.

American Chain Co., Inc., Bridgeport, Conn.
Bernz, Otto, Co., Newark, N. J.
Chain Products Co., The, Cleveland, O.
Dallas Brass & Copper Co., Chicago, Ill.
Hendryx—Andrew B. Hendryx Co., New Haven, Conn
Howe Chain Co., Muskegon, Mich.
Link-Belt Company, Chicago and Philadelphia.
Monarch—Bridgeport Chain Co., Bridgeport, Conn.
Rex—Chain Belt Co., Milwaukee, Wis.
Rome Brass & Copper Co., Rome, N. Y.
Rome Mfg. Co., Rome, N. Y.
Russell, John M., Mfg. Co., Naugatuck, Conn.
Smith & Egge Mfg. Co., Bridgeport, Conn.

CHAIN, BREAST.

Elwel—American Chain Co., Inc., Bridgeport, Conn.
Mundorf Chain Works, York, Pa.
Woodhouse Chain Works, Trenton, N. J.
United States Chain & Forging Co., Pittsburgh, Pa.

CHAIN, CABLE.

American Chain Co., Inc., Bridgeport, Conn.
C. C. and Hercules—Columbus McKinnon Chain Co., Tonawanda, N. Y.
D. B. G.—Bradlee & Co., Inc., Philadelphia, Pa.
J. B. C.—J. B. Carr & Co., Troy, N. Y.
Smith & Egge Mfg. Co., The, Bridgeport, Conn.
Taylor, S. G., Chain Co., Chicago, Ill.
United States Chain & Forging Co., Pittsburgh, Pa.
Woodhouse Chain Works, Trenton, N. J.

CHAIN, CAR, BRAKE, FENDER AND HAUL.

American Chain Co., Inc., Bridgeport, Conn.
Bridgeport Chain Co., Bridgeport, Conn.
Chain Products Co., The, Cleveland, O.
Newhall Chain Forge & Iron Co., New York, N. Y.
Taylor, S. G., Chain Co., Chicago, Ill.
United States Chain & Forging Co., Pittsburgh, Pa.
Woodhouse Chain Works, Trenton, N. J.

CHAIN, COIL.

American Chain Co., Bridgeport, Conn.
Bridgeport Chain Co., Bridgeport, Conn.
Carr, J. B. Co., Troy, N. Y.
C. C. and Hercules—Columbus McKinnon Chain Co., Tonawanda, N. Y.
Chain Products Co., Cleveland, O.
Cleveland Chain & Mfg. Co., Cleveland, O.
Hill-Curtis Co., Kalamazoo, Mich.
Hodell—The Chain Products Co., Cleveland, O.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Leach Co., The, Oshkosh, Wis.
Liberty—Columbus McKinnon Chain Co., Columbus, O.
Mundorf Chain Works, York, Pa.
Proof—B B-B B B—Krein Chain Co., The, Wapakoneta, O.
Taylor, S. G., Chain Co., Chicago, Ill.
United States Chain & Forging Co., Pittsburgh, Pa.
Weller Mfg. Co., Chicago, Ill.
Woodhouse Chain Works, Trenton, N. J.

CHAIN, CONTRACTORS.'

Columbus McKinnon Chain Co., Tonawanda, N. Y.
Newhall Chain Forge & Iron Co., New York, N. Y.
Taylor, S. G., Chain Co., Chicago, Ill.
United States Chain & Forging Co., Pittsburgh, Pa.
Woodhouse Chain Works, Trenton, N. J.

CHAIN, CONVEYOR OR SPROCKET.

Baldwin Chain & Mfg. Co., Worcester, Mass.
Bridgeport Chain Co., Bridgeport, Conn.
Caldwell, H. W., & Son Co., Chicago, Ill.
Carr, J. B., Co., Troy, N. Y.
C. C. and Hercules—Columbus McKinnon Chain Co., Tonawanda, N. Y.
Cleveland Chain & Mfg. Co., Cleveland, O.
Cleveland Machinery Co., Cleveland, Tenn.
Codd Co., E. J., Baltimore, Md.
Codd Tank & Specialty Co., The, Baltimore, Md.
Cross Engineering Co., Carbondale, Pa.
Diamond Chain & Mfg. Co., Indianapolis, Ind.
El-Wel-Tra—American Chain Co., Inc., Bridgeport, Conn.
Federal Malleable Co., West Allis, Wis.
Hendryx, Andrew B., Co., The, New Haven, Conn
Hill-Curtis Co., Kalamazoo, Mich.
Howe Chain Co., Muskegon, Mich.
Jeffrey Hercules—Jeffrey Mfg. Co., Columbus, O.
Krein Chain Co., The, Wapakoneta, O.
Lamson Co., Boston, Mass.
Lebanon Drop Forge Co., Avon, Pa.
Link-Belt Company, Chicago and Philadelphia.
Locke Steel Chain Co., Bridgeport, Conn.
Malleable Chain Co., Meadville, Pa.
Medart Co., The, St. Louis, Mo.
Mey—Mey Chain Belt Co., Buffalo, N. Y.
Michigan Sprocket Chain Co., Detroit, Mich.
Moline Malleable Iron Co., St. Charles, Ill.
Newhall Chain Forge & Iron Co., New York, N. Y.
Philadelphia Gear Works, Inc., Philadelphia, Pa.
Rex—Chain Belt Co., Milwaukee, Wis.
Rivetless—Cross Engineering Co., Carbondale, Pa.

Quality Service

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TAYLOR MADE

ELECTRIC WELD
FIRE WELD
HAND WELD
CHAIN

PRODUCTS have been distributed by Mill Supply Houses and Jobbers for over 50 years. They have been approved as to quality and service by the Associated General Contractors of America, thus meriting us the seal for successful performance. Quality is the watchword in the manufacture of our chain and fittings.

OUR Factory is centrally located being in Hammond, Indiana, where we carry a large and complete stock of pound, machine and coil chain as well as chain fittings. This enables us to ship orders promptly.

SUCCESSFUL PERFORMANCE A.G.C.A.

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CHICAGO, ILLINOIS

Est. 1873.

Factory
Hammond, Ind.

Robins Conveyor Belt Co., New York, N. Y.
Simplex—Cross Engineering Co., Carbondale, Pa.
Stowell Company, The, South Milwaukee, Wis.
Taylor, S. G., Chain Co., Chicago, Ill.
Taylor-Wharton Iron & Steel Co., High Bridge, N. J. (Trade names—Tisco Indestructo, Tisco Grit-proof, Tisco Keystone, Tisco Wearless.)
Union—Union Chain & Mfg. Co., Seville, O.
United States Chain & Forging Co., Pittsburgh, Pa.
Webster Mfg. Co., Chicago, Ill.
Weimer Chain & Iron Co., Lebanon, Pa.
Weller Mfg. Co., Chicago, Ill.
Woodhouse Chain Works, Trenton, N. J.
Yale & Towne Mfg. Co., New York, N. Y.

CHAIN, CUT LINK, AMERICAN PATTERN.

American Chain Co., Inc., Bridgeport, Conn.
Niagara Metal Stamping Corp., Niagara Falls, N. Y.

CHAIN DOGS.

American Chain Co., Bridgeport, Conn.
Bridgeport Chain Co., Bridgeport, Conn. (Trade names—Brown Weldless, Triumph.)
Krein Chain Co., The, Wapakoneta, O.
Leach Co., The, Oshkosh, Wis.
Taylor, S. G., Chain Co., Chicago, Ill.
United States Chain & Forging Co., Pittsburgh, Pa.

CHAIN, DRAG.

American Chain Co., Inc., Bridgeport, Conn.
Hill-Curtis Co., Kalamazoo, Mich.
Howe Chain Company, Muskegon, Mich.
Link-Belt Company, Chicago and Philadelphia.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Taylor, S. G., Chain Co., Chicago, Ill.
United States Chain & Forging Co., Pittsburgh, Pa.
Weller Mfg. Co., Chicago, Ill.

CHAIN, DREDGE.

C. C. and Hercules—Columbus McKinnon Chain Co., Tonawanda, N. Y.
Cleveland Chain & Mfg. Co., Cleveland, O.
D. B. G.—Bradlee & Co., Inc., Philadelphia, Pa.
H. B., Ajax—American Chain Co., Inc., Bridgeport, Conn.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Krein Chain Co., The, Wapakoneta, O.
Round & Son, D., Cleveland, O.
Taylor, S. G., Chain Co., Chicago, Ill.
Trojan—J. B. Carr, Co., Troy, N. Y.
United States Chain & Forging Co., Pittsburgh, Pa. (Trade names—Crown, XX.)
Warwick—Newhall Chain Forge & Iron Co., New York, N. Y.
Weimer Chain & Iron Co., Lebanon, Pa.
Woodhouse Chain Works, Trenton, N. J.

CHAIN, ELEVATOR.

Caldwell, H. W., & Son Co., Chicago, Ill.
Howe Chain Company, Muskegon, Mich.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Latimer, Robert L., & Co., Philadelphia, Pa.
Lebanon Drop Forge Co., Avon, Pa.
Link-Belt Company, Chicago and Philadelphia.
Newhall Chain Forge & Iron Co., New York, N. Y.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Taylor, S. G., Chain Co., Chicago, Ill.
United States Chain & Forging Co., Pittsburgh, Pa.
Weller Mfg. Co., Chicago, Ill.
Woodhouse Chain Works, Trenton, N. J.

CHAIN, HEATING FURNACE AND BOILER.

American—American Chain Co., Inc., Bridgeport, Conn.
Bridgeport Chain Co., Bridgeport, Conn.
Chain Products Co., The, Cleveland, O.
Star Brand—The Turner & Seymour Mfg. Co., Torrington, Conn.
United States Chain & Forging Co., Pittsburgh, Pa.
Universal—Parker Wire Goods Co., Worcester, Mass.

CHAIN HOISTS.

(See "Hoists, Chain.")

CHAIN, HOIST.

Columbus McKinnon Chain Co., Tonawanda, N. Y.
Hobbs, Clinton E., Co., Boston, Mass.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Newhall Chain Forge & Iron Co., New York, N. Y.
Scully Steel & Iron Co., Chicago, Ill.
Taylor, S. G., Chain Co., Chicago, Ill.
United States Chain & Forging Co., Pittsburgh, Pa.

CHAIN, JACK.

American Chain Co., Inc., Bridgeport, Conn.
Bemanco—M. S. Little Mfg. Co., Hartford, Conn.
Corbin Screw Corp., New Britain, Conn.
Grammes, L. F., & Sons, Inc., Allentown, Pa.
Hendryx—Andrew B. Hendryx Co., New Haven, Conn.
Mattatuck Mfg. Co., The, New York, N. Y.

Plume & Atwood Mfg. Co., Waterbury, Conn.
Russell, John M., Mfg. Co., Naugatuck, Conn.
Smith & Egge Mfg. Co., Bridgeport, Conn.
Star—U. T. Hungerford Brass & Copper Co., New York, N. Y.
Star Brand—The Turner & Seymour Mfg. Co., Torrington, Conn.

CHAIN, LOADING.

Ajax—American Chain Co., Inc., Bridgeport, Conn.
Columbus McKinnon Chain Co., Tonawanda, N. Y.
Leach Co., The, Oshkosh, Wis.
Reading—American Chain Co., Inc., Bridgeport, Conn.
Taylor, S. G., Chain Co., Chicago, Ill.
Trident—Newhall Chain Forge & Iron Co., New York, N. Y.
Tri-Weld—Cleveland Chain & Mfg. Co., Cleveland, Ohio.
United States Chain & Forging Co., Pittsburgh, Pa.
Woodhouse Chain Works, Trenton, N. J.

CHAIN, LOG OR BINDING.

American Chain Co., Inc., Bridgeport, Conn.
Carr, J. B., Co., Troy, N. Y.
Cleveland Chain & Mfg. Co., Cleveland, O.
Columbus McKinnon Chain Co., Tonawanda, N. Y.
Hill-Curtis Co., Kalamazoo, Mich.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Leach Co., The, Oshkosh, Wis.
Link-Belt Company, Chicago and Philadelphia.
Mundorf Chain Works, York, Pa.
Newhall Chain Forge & Iron Co., New York, N. Y.
Taylor, S. G., Chain Co., Chicago, Ill.
United States Chain & Forging Co., Pittsburgh, Pa.
Woodhouse Chain Works, Trenton, N. J.

CHAIN, MACHINERY.

American—American Chain Co., Bridgeport, Conn.
Atlas Machine Co., The, Waterbury, Conn.
Boker—H. Boker & Co., New York, N. Y.
Bridgeport Chain Co., Bridgeport, Conn.
Carr, J. B., Co., Troy, N. Y.
Chain Products Co., The, Cleveland, Ohio.
Cleveland Chain & Mfg. Co., Cleveland, O.
Columbus McKinnon Chain Co., Tonawanda, N. Y.
Diamond Chain & Mfg. Co., Indianapolis, Ind.
Howe Chain Co., Muskegon, Mich.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Krein Chain Co., The, Wapakoneta, Ohio.
Liberty—Mundorf Chain Works, York, Pa.
Link-Belt Company, Chicago and Philadelphia.
Michigan Sprocket Chain Co., Detroit, Mich.
Rex—Chain Belt Co., Milwaukee, Wis.
Round, D., & Son, Cleveland, O.
Stephens-Adamson Mfg. Co., Aurora, Ill.
U. S. Chain & Forging Co., Pittsburgh, Pa.
V. & O.—The V. & O. Press Co., Brooklyn, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Woodhouse Chain Works, Trenton, N. J.

CHAIN, MALLEABLE IRON AND STEEL COMBINATION.

Caldwell, H. W., & Son Co., Chicago, Ill.
Howe Chain Co., Muskegon, Mich.
Link-Belt Company, Chicago and Philadelphia.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Weller Mfg. Co., Chicago, Ill.

CHAIN, MARINE.

American Chain Co., Inc., Bridgeport, Conn.
D. B. G.—Bradlee & Co., Inc., Philadelphia, Pa.
Latimer, Robert L., & Co., Philadelphia, Penna.
National Malleable & Steel Castings Co., Cleveland, O.
Taylor, S. G., Chain Co., Chicago, Ill.
United States Chain & Forging Co., Pittsburgh, Pa.
Warwick—Newhall Chain Forge & Iron Co., New York, N. Y.
Weimer Chain & Iron Co., Lebanon, Pa.
Wilcox, Crittenden & Co., Inc., Middletown, Conn.
Woodhouse Chain Co., Trenton, N. J.

CHAIN, MORTISING.

Buol—Buol Machine Co., New Britain, Conn.
Renold—Woodworkers' Tool Works, Chicago, Ill.

CHAIN FOR PIPE HANGING.

Bridgeport Chain Co., Bridgeport, Conn.
Chain Products Co., The, Cleveland, O.
Niagara—American Chain Co., Bridgeport, Conn.

CHAIN, PLUMBERS.

Acme Mfg. Co., Inc., Waterbury, Conn.
American Chain Co., Bridgeport, Conn.
American Sanitary Mfg. Co., Abingdon, Ill.
Bemanco—M. S. Little Mfg. Co., Hartford, Conn.
Bridgeport Chain Co., Bridgeport, Conn.
Chain Products Co., The, Cleveland, Ohio. (Trade names—Cepeco, Hodel.)
Corbin Screw Corp., New Britain, Conn.
Duplex—The Hatheway Mfg. Co., Bridgeport, Conn.
Frost Mfg. Co., Kenosha, Wis.
Grammes, L. F., & Sons, Allentown, Pa.
Haydenville Co., Haydenville, Mass.
Hendryx—Andrew B. Hendryx Co., New Haven, Conn.
Mattatuck Mfg. Co., The, Waterbury, Conn.
Mueller Co., Decatur, Ill.
Peck Bros. & Co., The, New Haven, Conn.
Phoenix Hardware Mfg. Co., Buffalo, N. Y.
Plume & Atwood Mfg. Co., The, Waterbury, Conn.
Richter & Co., Cincinnati, O.
Russell, John M., Mfg. Co., Inc., The, Naugatuck, Conn.
Smith & Egge Mfg. Co., Bridgeport, Conn.
Star Brand—The Turner & Seymour Mfg. Co., Torrington, Conn.
Star—U. T. Hungerford Brass & Copper Co., New York, N. Y.
Steele & Johnson Mfg. Co., Waterbury, Conn.
Stephens Nut & Bolt Co., Central Falls, R. I.
United States Chain & Forging Co., Pittsburgh, Pa.
Washburn Co., The, Wire Goods Div., Worcester, Mass.
Wiseco—J. B. Wise, Inc., Watertown, N. Y.
Woodhouse Chain Works, Trenton, N. J.
W. W.—Woodward-Wanger Co., Philadelphia, Pa.

CHAIN, POCKET WHEEL AND SPROCKET WHEEL.

American Chain Co., Inc., Bridgeport, Conn.
Caldwell, H. W., & Son Co., Chicago, Ill.
Codd Tank & Specialty Co., Baltimore, Md.
Diamond Chain & Mfg. Co., Indianapolis, Ind.
Howe Chain Co., Muskegon, Mich.
Link-Belt Company, Chicago and Philadelphia.
Mey—Mey Chain Belt Co., Buffalo, N. Y.
Morse Chain Co., The, Ithaca, N. Y.
Newhall Chain Forge & Iron Co., New York, N. Y.
Taylor, S. G., Chain Co., Chicago, Ill.
United States Chain & Forging Co., Pittsburgh, Pa.
Weller Mfg. Co., Chicago, Ill.

CHAIN, RAILROAD.

American Chain Co., Inc., Bridgeport, Conn.
Bridgeport Chain Co., Bridgeport, Conn.
Carr, J. B., Troy, N. Y.
C. C. and Hercules—Columbus McKinnon Chain Co., Tonawanda, N. Y.
Chain Products Co., The, Cleveland, O.
Cleveland Chain & Mfg. Co., Cleveland, O.
Krein Chain Co., The, Wapakoneta, O.
National Malleable & Steel Castings Co., Cleveland, O.
Niagara, Tenso—American Chain Co., Inc., Bridgeport, Conn.
Round & Son, D., Cleveland, O.
Taylor, S. G., Chain Co., Chicago, Ill.
United States Chain & Forging Co., Pittsburgh, Pa.
Warwick—Newhall Chain Forge & Iron Co., New York, N. Y.
Woodhouse Chain Co., Trenton, N. J.

CHAIN, ROLLER.

Diamond Chain & Mfg. Co., Indianapolis, Ind.
Howe Chain Co., Muskegon, Mich.
Link-Belt Company, Chicago and Philadelphia.
Weller Mfg. Co., Chicago, Ill.
Whitney—Whitney Mfg. Co., Hartford, Conn.

CHAIN, SAFETY.

American Chain Co., Inc., Bridgeport, Conn.
Bridgeport Chain Co., Bridgeport, Conn.
Chain Products Co., The, Cleveland, Ohio.
Corbin Screw Corp., New Britain, Conn.
Hatheway Mfg. Co., The, Bridgeport, Conn.
Mattatuck Mfg. Co., The, New York, Conn.
Smith & Egge Mfg. Co., Bridgeport, Conn.
Star—The Turner & Seymour Mfg. Co., Torrington, Conn.
Star—U. T. Hungerford Brass & Copper Co., New York, N. Y.
United States Chain & Forging Co., Pittsburgh, Pa.
Universal—Parker Wire Goods Co., Worcester, Mass.

CHAIN, SASH.

Acco—American Chain Co., Inc., Bridgeport, Conn.
Chain Products Co., Cleveland, O.
Corbin Screw Corp., New Britain, Conn.
Crescent, Crown—The Atlantic Co., Brooklyn, N. Y.
Hatheway Mfg. Co., The, Bridgeport, Conn.
Monarch—The Bridgeport Chain Co., Bridgeport, Conn. (Steel.)
Red Metal, Giant—Smith & Egge Mfg. Co., Bridgeport, Conn.
Russell, John M., Mfg. Co., Naugatuck, Conn.
Star—U. T. Hungerford Brass & Copper Co., New York, N. Y.
Star Brand—The Turner & Seymour Mfg. Co., Torrington, Conn.

CHAIN SHACKLES AND CLEVISES.

American Chain Co., Inc., Bridgeport, Conn.
Bridgeport Chain Co., The, Bridgeport, Conn.
Carr & Co., J. B., Troy, N. Y.
Fischer & Hayes Rope & Steel Co., Chicago, Ill.
United States Chain & Forging Co., Pittsburgh, Pa.
Weimer Chain & Iron Co., Lebanon, Pa.

CHAIN, SLING.

Ajax—American Chain Co., Inc., Bridgeport, Conn.
Cleveland Chain & Mfg. Co., Cleveland, O.
Link-Belt Company, Chicago and Philadelphia.
Newhall Chain Forge & Iron Co., New York, N. Y.
Pittsburg Block & Mfg. Co., Pittsburgh, Pa.
Pollard, Jos. G., Co., Inc., Brooklyn, N. Y.
Scully Steel & Iron Works, Chicago, Ill.
Taylor, S. G., Chain Co., Chicago, Ill.
United States Chain & Forging Co., Pittsburgh, Pa.
Weimer Chain & Iron Co., Lebanon, Pa.
Woodhouse Chain Works, Trenton, N. J.

CHAIN, STEAM SHOVEL.

Ajax—American Chain Co., Inc., Bridgeport, Conn.
C. C. and Hercules—Columbus McKinnon Chain Co., Tonawanda, N. Y.
Taylor Mesaba—S. G. Taylor Chain Co., Chicago, Ill.
United States Chain & Forging Co., Pittsburgh, Pa. (Trade names—Crown, XX.)
Warwick—Newhall Chain Forge & Iron Co., New York, N. Y.
Weimer Chain & Iron Co., Lebanon, Pa.

CHAIN, STUD LINK.

American Chain Co., Inc., Bridgeport, Conn.
Carr, J. B., Co., Troy, N. Y.
C. C. and Hercules—Columbus McKinnon Chain Co., Tonawanda, N. Y.
Taylor, S. G., Chain Co., Chicago, Ill.
United States Chain & Forging Co., Pittsburgh, Pa.
Woodhouse Chain Works, Trenton, N. J.

CHAIN, TRANSMISSION.

Chain Products Co., Cleveland, O.
Diamond—Diamond Chain Mfg. Co., Indianapolis, Ind
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Howe Chain Co., Muskegon, Mich.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Link-Belt Company, Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
Rex—Chain Belt Co., Milwaukee, Wis.
Rocker Joint—Morse Chain Co., Ithaca, N. Y.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Stowell Co., The, South Milwaukee, Wis.
Taylor, S. G., Chain Co., Chicago, Ill.
United States Chain & Forging Co., Pittsburgh, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Whitney—Whitney Mfg. Co., Hartford, Conn.

CHAIN, TRANSMISSION, SILENT.

American Highspeed Chain Co., Indianapolis, Ind
Boston Gear Works Sales Co., Norfolk Downs, Mass. "Renold-Boston."
Howe Chain Co., Muskegon, Mich.
Link-Belt Company, Chicago and Philadelphia
Morse Chain Co., Ithaca, N. Y.
Ramsey Chain Co., Inc., Albany, N. Y.
Weller Mfg. Co., Chicago, Ill.
Whitney—Whitney Mfg. Co., Hartford, Conn.

CHAIN, TRUCK.

Columbus McKinnon Chain Co., Tonawanda, N. Y.
Elwel—American Chain Co., Inc., Bridgeport, Conn.
Link-Belt Company, Chicago and Philadelphia.
Mundorf Chain Works, York, Pa.
Newhall Chain Forge & Iron Co., New York, N. Y.
Taylor, S. G., Chain Co., Chicago, Ill.
Trax-yun—The Krein Chain Co., Wapakoneta, Ohio.
United States Chain & Forging Co., Pittsburgh, Pa.

CHAIN, WAGON.

American Chain Co., Bridgeport, Conn.
Bridgeport Chain Co., The, Bridgeport, Conn.
Chain Products Co., The, Cleveland, O.
Cleveland Chain & Mfg. Co., Cleveland, O.
Columbus McKinnon Chain Co., Tonawanda, N. Y.
Taylor, S. G., Chain Co., Chicago, Ill.
United States Chain & Forging Co., Pittsburgh, Pa.
Woodhouse Chain Works, Trenton, N. J.

CHAIN, WELDLESS.

American Chain Co., Inc., Bridgeport, Conn. (Trade names—American, Lock Link, Niagara, Tenso.)
Brown, Triumph—The Bridgeport Chain Co., Bridgeport, Conn.
Chain Products Co., The, Cleveland, O.
Lock Weave—D. Round & Son, Cleveland, O.

CHAIRS AND CLOSET SEATS, COMBINED.

Crocker Chair Co., Sheboygan, Wis.
Mueller Co., Decatur, Ill.
Wolff Mfg. Corp., Chicago, Ill.

CHAMBERS, AIR, SUPPLY PIPE.

American Foundry & Mfg. Co., St. Louis, Mo.
American Pin Co., Waterbury, Conn.
American Sanitary Mfg. Co., Abingdon, Ill.
I. & M.—Ireland & Matthews Mfg. Co., Detroit, Mich.
"I. X. L." Pump & Mfg. Co., Philadelphia, Pa.
Nelson, N. O., Mfg. Co., St. Louis, Mo.
Pilot—Hedges & Brother, Newark, N. J.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Waterbury Mfg. Co., Waterbury, Conn.
Wiseco—J. B. Wise, Inc., Watertown, N. Y.

CHASERS, SCREW CUTTING.

Bath, John, & Co., Inc., Worcester, Mass.
Bay State—Bay State Tap & Die Co., Mansfield, Mass
Card, S. W., Mfg. Co., Div. of Union Twist Drill Co., Mansfield, Mass.
Landis Machine Co., Waynesboro, Pa.
Nye—Nye Tool & Machine Works, Chicago, Ill.

CHECKS, TOOL AND TIME.

Continental Fibre Co., Newark, Del.
Hoggson & Pettis Mfg. Co., New Haven, Conn.
Matthews & Co., Jas. H., Pittsburgh, Pa.
Markwell—Henry Moss & Co., Inc., New York, N. Y.
Niagara Metal Stamping Corp, Niagara Falls, N. Y.
Master Markers—Pannier Bros. Stamp Co., Inc., Pittsburgh, Pa.
Noble & Westbrook Co., Hartford, Conn.
Partridge-Scotford Stamp & Stencil Co., Kansas City, Mo.
Schwerdtle Stamp Co., The, Bridgeport, Conn.

CHESTS, TOOL, STEEL.

Bruhn's—The Bruhn Mfg. Co., Gary, Ind.
National—Warner Implement Co., Hammond, Ind.
Starbuck—R. M. Starbuck & Sons, Hartford, Conn
Union Tool Chest Co., Inc., Rochester, N. Y.
Vanderman's—The Vanderman Mfg. Co., Willimantic, Conn.

CHESTS, TOOL, SUIT CASE.

Arrow—C. E. Jennings & Co., New York, N. Y.
Gerstner, H., & Sons, Dayton, O.
Kennedy Kits—Kennedy Mfg. Co., Van Wert, O. (steel.)
Leatheroid—Rogers Fibre Co., Boston, Mass.
National—National Cabinet Co., Dayton, O.
Union Tool Chest Co., Inc., Rochester, N. Y. (Trade names—Union, Wizard.)
W. & B.—Wedell & Boers, Detroit, Mich.

CHESTS, TOOL, WOOD.

Buhrke—R. H. Buhrke Co., Chicago, Ill.
Gerstner, H., & Sons, Dayton, Ohio.
Green Case Co., Racine, Wisconsin.
Union—Union Tool Chest Co., Inc., Rochester, N. Y. (Also metal covered.)

CHIPPERS, PNEUMATIC.

(See "Tools, Pneumatic.")

CHISEL BLANKS.

Amco—Amco Sales Corp., Chicago, Ill.
Chicago Pneumatic Tool Co., New York, N. Y. "C. P."
Hunter Saw & Machine Co., Pittsburgh, Pa.
Lovejoy Tool Works, Chicago, Ill.
Marco-Vanadium—Geo. F. Marchant Co., Chicago, Ill.
Mephisto—The W. A. Ives Mfg. Co., Wallingford, Conn.
Paragon Tool Co., Seattle, Wash.
Vulcan—Vulcan Tool Mfg. Co., Quincy, Mass.

CHISELS, BOX.

Bridgeport Hardware Mfg. Co., Bridgeport, Conn.
Drew, C., & Co., Kingston, Mass.
Duffy Manufacturing Co., Chicago, Ill.
Johnson, Wm., Firm of, Newark, N. J.
Kilborn & Bishop Co., New Haven, Conn.
National Tool Co., New York, N. Y.
Pollard, Joseph G. Co., Inc., Brooklyn, N. Y.

CHISELS, BRICK AND WALL.

American Saw & Tool Works, Chicago, Ill
Cincinnati Tool Co., The, Cincinnati, O. "Hargrave."
Dasco—Damascus Steel Products Co., Rockford, Ill.
Delaware—Otto Bernz Co., Inc., Newark, N. J.
Horseshoe—Stanley Tool & Level Plant, Atha Works, New Britain, Conn.
Johnson, Wm., Firm of, Newark, N. J.
Kilborn & Bishop Co., New Haven, Conn.
Mueller Co., Decatur, Ill.
Peck, Stow & Wilcox Co., Southington, Conn.
Pollard, Joseph G. Co., Inc., Brooklyn, N. Y.

Silex—The Kilborn & Bishop Co., New Haven, Conn.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Vichek Tool Co., The, Cleveland, O.
Vulcan Tool Mfg. Co., The, Quincy, Mass.

CHISELS, BULL POINT.

Cincinnati Tool Co., The, Cincinnati, O. "Hargrave."

CHISELS, CARPENTERS'.

Barton—Mack Tool Co., Inc., East Rochester, N. Y.
Billings & Spencer Co., Hartford, Conn.
Buck Bros., Millbury, Mass.
Buffum Tool Co., Louisiana, Mo.
Crescent—The Crescent Co., Inc., Meriden, Conn.
Dasco—Damascus Steel Products Co., Rockford, Ill.
Greenlee—Greenlee Bros. & Co., Rockford, Ill.
Horseshoe—The Stanley Rule and Level Plant, Atha Dept., New Britain, Conn.
Kilborn & Bishop Co., New Haven, Conn.
Jennings, C. E., & Co., New York, N. Y.
Mephisto—W. A. Ives Mfg. Co., Wallingford, Conn.
Milwaukee Tool & Forge Co., Milwaukee, Wis.
Peck, Stow & Wilcox Co., Southington, Conn.
Pollard, Joseph G. Co., Inc., Brooklyn, N. Y.
Samson—Union Hardware Co., Torrington, Conn.
Scandinavian Western Importing Co., New York. "Eskilstuna."
Swan Co., The James, Seymour, Conn.
Tuck Mfg. Co., Brockton, Mass.
White, L. & I., Co., The, Buffalo, N. Y.

CHISELS, CAULKING.

(See also "Tools, Caulking.")
Johnson, Wm., Firm of, Newark, N. J.

CHISELS, CHIPPING, HAND.

Iron City—Iron City Tool Works, Pittsburgh, Pa.

CHISELS, CHIPPING, PNEUMATIC HAMMER.

Arrow Tools, Inc., Chicago, Ill.
Misener & Irving Mfg. Co., Inc., Syracuse, N. Y. "Indian."
Vulcan Tool Mfg. Co., The, Quincy, Mass.

CHISELS, COLD, CAPE, DIAMOND POINT AND ROUND NOSE.

American Saw & Tool Works, Chicago, Ill.
Anderson, W. H., Tool & Supply Co., Detroit, Mich.
Bradley's Sons, G. W., Westport, Conn.
Buck Bros., Millbury, Mass.
Buffum Tool Co. Louisiana, Mo.
Champion-De Arment Tool Co., Meadville, Pa.
Cornwell—The Cornwell Quality Tools Co., Cuyahoga Falls, O.
Cronk's—The Cronk & Carrier Mfg. Co., Montour Falls, N. Y.
Dasco—Damascus Steel Products Co., Rockford, Ill.
Delaware—Otto Bernz Co., Inc., Newark, N. J.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Drew, C., & Co., Kingston, Mass.
Duffy Manufacturing Co., Chicago, Ill.
Elmore—The Chapin-Stephens Co., Pine Meadow, Conn.
Goodell-Pratt Co., Greenfield, Mass.
Hargrave—Cincinnati Tool Co., Cincinnati, O.
Heller Bros. Co., Newark, N. J.
Hood Bros., Philadelphia, Pa.
Horseshoe—Stanley Rule & Level Plant, The, Atha Dept., New Britain, Conn.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa
Irvington Mfg. Co., Irvington, N. J.
Johnson, Wm., Firm of, Newark, N. J.
K. & B., Silex—The Kilborn & Bishop Co., New Haven, Conn.
Klein-Logan Co., The, Pittsburg, Pa.
Leetonia Tool Co., The, Leetonia, Ohio.
Lovejoy Tool Works, Chicago, Ill.
Marcy Tool Works, Inc., Putnam, Conn.
Mayhew Steel Products, Inc., New York, N. Y.
Mechanics Tool Co., Rockford, Ill.
Mephisto—W. A. Ives. Mfg. Co., Wallingford, Conn.
Milwaukee Tool & Forge Co., Milwaukee, Wis.
Mound—Mound Tool Co., St. Louis, Mo.
Misener & Irving Mfg. Co., Inc., Syracuse, N. Y. "Indian."
Mueller Co., Decatur, Ill.
National Tool Co., New York, N. Y.
Octagon—The H. D. Smith & Co., Plantsville, Conn.
Peck, Stow & Wilcox Co., Southington, Conn.
Plumb—Plumb, Fayette R., Inc., Philadelphia, Pa.
Pollard, Joseph G. Co., Inc., Brooklyn, N. Y.
Quikwerk—Warren Tool & Forge Co., Warren, O.
Red Devil—Smith & Hemenway Co., Inc., Irvington, N. J.
Sayre, L. A., Co., Newark, N. J.
Sebco—Star Expansion Bolt Co., New York.
SharpenEzy—The H. D. Smith & Co., Plantsville, Conn.
Snell Mfg. Co., Fiskdale, Mass.
Southington Mfg. Co., Southington, Conn.
Stanley Rule & Level Co., Atha Div., New Britain, Conn.
Syracuse Twist Drill Co., Syracuse, N. Y.
Tobrin Tool Co., The, Plantsville, Conn.
Tucks—Tuck Mfg. Co., Brockton, Mass.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Vichek Tool Co., The, Cleveland, O.
Vulcan Tool Mfg. Co., The, Quincy, Mass.
W. C. Carver—Carver Tool Works, Spring Valley, N. Y.
Whitaker Mfg. Co., Chicago, Ill.
ZuBar—Zubar Mfg. Co., Inc., Philadelphia, Pa.

CHISELS, FLOOR.

American Saw & Tool Works, Chicago, Ill.
Buck Bros., Millbury, Mass.
Delaware—Otto Bernz Co., Inc., Newark, N. J.
Drew, C., & Co., Kingston, Mass.
Hargrave—Cincinnati Tool Co., Cincinnati, O.
Johnson, Wm., Firm of, Newark, N. J.
Marcy Tool Works, The, Putnam, Conn.
Mephisto—W. A. Ives Mfg. Co., Wallingford, Conn.
Misener & Irving Mfg. Co., Inc., Syracuse, N. Y. "Misener."
Mueller Co., Decatur, Ill.
National Tool Co., New York, N. Y.
Pollard, Joseph G. Co., Inc., Brooklyn, N. Y.
Silex—The Kilborn & Bishop Co., New Haven, Conn.

CHISELS, JOINTS.

Cincinnati Tool Co., The, Cincinnati, O.

CHISELS, MORTISING, HOLLOW.

Crescent Machine Co., Leetonia, Ohio.
Forest City Bit & Tool Co., Rockford, Ill.
Greenlee—Greenlee Bros. & Co., Rockford, Ill.
Hoe, R., & Co., Inc., New York, N. Y.
Star Bit & Tool Co., Rockford, Ill.
Woodworkers' Tool Works, Chicago, Ill.

CHISELS, PLUGGING.

B. M. Co.—Braunsdorf-Mueller Co., Elizabeth, N. J.
Silex—The Kilborn & Bishop Co., New Haven, Conn.

CHISELS, PLUMBERS' AND STEAM-FITTERS'.

American Saw & Tool Works, Chicago, Ill.
Anderson Tool & Supply Co., W. H., Detroit, Mich.
Bernz Co., Otto, Newark, N. J.
Buffum Tool Co., Louisiana, Mo.
W. C. Carver—Carver Tool Works, Spring Valley N. Y.
Johnson, Wm., Firm of, Newark, N. J.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Marcy—Marcy Tool Works, Putnam, Conn.
Mound—Mound Tool Co., St. Louis, Mo.
Mueller Co., Decatur, Ill.
National Tool Co., New York, N. Y.
Pilley—Pilley Packing & Flue Mfg. Co., St. Louis, Mo.
Pollard, Joseph G. Co., Inc., Brooklyn, N. Y.
Starbuck & Sons Co., R. M., Hartford, Conn.
Syracuse Twist Drill Co., Syracuse, N. Y.

CHISELS, RIPPING.

Johnson, Wm., Firm of, Newark, N. J.
National Tool Co., New York, N. Y.
Pollard, Joseph G. Co., Inc., Brooklyn, N. Y.
Silex—The Kilborn & Bishop Co., New Haven, Conn.

CHISELS, ROUND NOSE.

Cincinnati Tool Co., The, Cincinnati, O. "Hargrave."

CHISELS (AND PUNCHES) IN SETS.

Marcy Tool Works, Putnam, Conn.

CHISELS, STONECUTTERS'.

Anderson, W. H., Tool & Supply Co., Detroit, Mich.
Hargrave—The Cincinnati Tool Co., Cincinnati, O.
Iron City—Iron City Tool Works, Pittsburgh, Pa.
Stanley Rule & Level Plant, Atha Dept., New Britain, Conn.
Vulcan Tool Mfg. Co., The, Quincy, Mass.

CHISELS, TRACK.

Duffy Manufacturing Co., Chicago, Ill.
Iron City—Iron City Tool Works, Pittsburgh, Pa.
Plumb, Fayette R., Inc., Philadelphia, Pa.
Quikwerk—Warren Tool & Forge Co., Warren, O.

CHISELS (AND GOUGES), TURNING.

Buck Bros., Millbury, Mass.

CHISELS, WOOD, ALL STEEL.

Delaware—Otto Bernz Co., Inc., Newark, N. J.
Hargrave—The Cincinnati Tool Co., Cincinnati, O.

CHOCKS, TRUCK (FOR LOADING HAND TRUCKS).

Pierce—The Pierce Corp., Anderson, Ind.

Ettco Chuck with Holding Collar for Electric Drills

Ettco

Keyless Ball Bearing Drill Chuck

Can be furnished to fit all makes of Electric Drills

EASTERN TUBE & TOOL CO.

594 Johnson Avenue -- Brooklyn, N. Y.

CHUCKS, AIR.

Aero—Manufacturers' Equipment Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York, N. Y. "Boyer."
Hannifin Mfg. Co., Chicago, Ill.
Lavoie—Frontier Chuck & Tool Co., Buffalo, N. Y.
Logan—Logansport Machine Co., Logansport, Ind.
M. E. C.—Manufacturers Equipment Co., Chicago, Ill.
Schrader—Eastman Mfg. Co., Manitowoc, Wis.
Skinner Chuck Co., The, New Britain, Conn.

CHUCKS, AUTOMATIC.

Ettco—Eastern Tube & Tool Co., Inc., Brooklyn, N. Y.
Gronkvost—S. K. F. Industries, Inc., New York, N. Y.
Horton, E., & Son Co., The, Windsor Locks, Conn.
Potter & Johnston Machine Co., Pawtucket, R. I.
Wahlstrom Tool Co., Brooklyn, N. Y. (drill only).

CHUCKS, BORING MILL.

Bullard Machine Tool Co., Bridgeport, Conn.
Detroit Pattern Works, Detroit, Mich.
Gisholt Machine Co., Madison, Wis.
Horton, E., & Son Co., Windsor Locks, Conn.
Niles-Bement-Pond Co., New York.
Union Mfg. Co., New Britain, Conn.

CHUCKS, CAR WHEEL.

Horton, E., & Son Co., Windsor Locks, Conn.
Skinner Chuck Co., The, New Britain, Conn.
Sweetland—The Hoggson & Pettis Mfg. Co., New Haven, Conn.
Union Manufacturing Co., New Britain, Conn.

CHUCKS, COMBINATION.

Cushman Chuck Co., Hartford, Conn.
Horton, E., & Son Co., Windsor Locks, Conn.
Skinner Chuck Co., New Britain, Conn.
Sweetland—The Hoggson & Pettis Mfg. Co., New Haven, Conn.
Union Manufacturing Co., New Britain, Conn.
Westcotts—Westcott Chuck Co., Oneida, N. Y.

CHUCKS, DRILL AND TAP.

Allen Extension—Allen Mfg. Co., Hartford, Conn.
Almond, T. R., Mfg. Co., Ashburnham, Mass. (Trade names—Almond, Straight Line.)
Beaman & Smith—Manning, Maxwell & Moore, Inc., New York, N. Y.
Boker, H., & Co., Inc., New York, N. Y.
Buffalo Forge Co., Buffalo, N. Y.
Bullock Mfg. Associates, Springfield, Mass.
Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Casler—Marvin & Casler Co., Canastota, N. Y.
Celfor—Clark Equipment Co., Buchanan, Mich.
Champion Blower & Forge Co., Lancaster, Pa.
Coit—Narragansett Machine Co., Providence, R. I.
Economy—Whitman & Barnes Mfg. Co., Akron, O
Errington—Errington, F. A., New York, N. Y. (quick change).
Ettco—Eastern Tube & Tool Co., Brooklyn, N. Y.
Greenfield—Goodell-Pratt Co., Greenfield, Mass.
Graham—Detroit Twist Drill Co., Detroit, Mich.
Gronkvost—S. K. F. Industries, Inc., New York,
G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.
Hartford—Cushman Chuck Co., Hartford, Conn.
Hoggson & Pettis Mfg. Co., New Haven, Conn.
Horton, E., & Son Co., The, Windsor Locks, Conn. (Trade names—Horton, Horton-Morrow, Horton BB.)
Improved Woodstock—Peter Bros. Mfg. Co., Algonquin, Ill.
Jacobs—The Jacobs Mfg. Co., Hartford, Conn.
Magic—Consolidated Machine Tool Corp. of America, New York, N. Y.
Millers Falls Co., Millers Falls, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass. (Trade names—Beach Patent, Stetson Patent.)
Nielsen, Inc., Lawton, Mich.
Niles-Bement-Pond Co., New York, N. Y.
Pratt's Patent, Empire—The Pratt Chuck Co., Frankfort, N. Y.
Procunier, Wm. L., Chicago, Ill.
Presto—Whitney Mfg. Co., Hartford, Conn.
Quictite—Eastern Tube & Tool Company, Inc., Brooklyn, N. Y.
Red Line—The Oberlin Mfg. Co., Oberlin, O.
Reid—R. H. Brown & Co., New Haven, Conn.
Skinner—The Skinner Chuck Co., New Britain, Conn.
Standard Tool Co., Cleveland, O.
Star—Millers Falls Co., Millers Falls, Mass.
Union & New Britain—Union Mfg. Co., New Britain, Conn.
Victor—Emmert Mfg. Co., Waynesboro, Pa.
Wahlstrom—The Wahlstrom Tool Co., Brooklyn, N. Y.
Watts Bros. Tool Co., Wilmerding, Pa. (For drilling angular holes.)
Wear-Ever—Scully-Jones & Co., Chicago, Ill.
Weaver Roller Jaw—Weaver Mfg. Co., Springfield Ill.
Westcott Chuck Co., Oneida, N. Y. (Trade names—Westcott's Little Giant Improved, Double Grip Auxiliary Screw, Oneida.)
Whiton, D. E., Machine Co., The, New London, Conn.
Whitman Barnes-Detroit Corp., Detroit, Mich.
Wizard—McCrosky Tool Corp., Meadville, Pa.
Woodstock—Peter Bros. Mfg. Co., Algonquin, Ill.
Yankee—North Bros. Mfg. Co., Philadelphia, Pa.

CHUCKS, DRILL PRESS.

Handy Tool—Skinner Chuck Co., New Britain, Conn.

CHUCKS, DRILL, AUXILIARY SCREW.

Little Giant—Westcott Chuck Co., Oneida, N. Y.

CHUCKS, DRILL, QUICK CHANGE COLLET.

Apex Machine Co., Dayton, O.
Errington—Errington Mechanical Laboratory, New York.
Ettco—Eastern Tube & Tool Co., Inc., Brooklyn, N. Y.
Geometric—The Geometric Tool Co., New Haven, Conn.
Jarvis—The Chas. L. Jarvis Co., Gildersleeve, Conn.
Procunier Double Jaw—Wm. L. Procunier, Chicago, Ill.
Rapid—American Equipment Co., Detroit, Mich.
Scully-Jones & Co., Chicago, Ill. "Wear-Ever."
Wahlstrom Tool Co., Brooklyn, N. Y.
Wear Ever—Scully Jones & Co., Chicago, Ill.
Wizard—McCrosky Tool Corp., Meadville, Pa.
Wonder—The Collis Co., Clinton, Ia.

CHUCKS, EMERY WHEEL.

Economy—Skinner Chuck Co., The, New Britain, Conn.
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Garrison Made—Garrison Machine Works, Dayton, Ohio.
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Skinner Chuck Co., New Britain, Conn.
Sweetland—Hoggson & Pettis Mfg. Co., New Haven, Conn.
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Cushman Chuck Co., Hartford, Conn.
Horton, E., & Son Co., The, Windsor Locks, Conn.
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Westcott Chuck Co., Oneida, N. Y. (Trade names, I. X. L., I. X. L. Junior.)
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Tri-Plex—The Cushman Chuck Co., Hartford, Conn.
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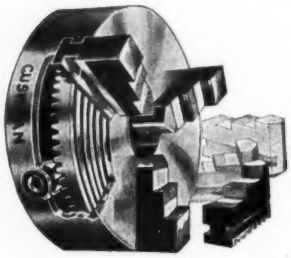

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CLAMPS, RULE.

Goodell-Pratt Co., Greenfield, Mass.
Starrett, L. S., Co., The, Athol, Mass.

CLAMPS, SAW.

Atkins, E. C., & Co., Indianapolis, Ind.
Crescent Machine Co., Leetonia, O.
Disston, Henry & Sons, Inc., Tacony, Philadelphia, Pa.
Grammes, L. F., & Sons, Allentown, Pa.
Gunn, Clan, Folding Clamp Co., Pittsburgh, Pa. (folding.)
Machinery Co. of America, Big Rapids, Mich.
Rogers, Samuel C., & Co., Buffalo, N. Y.
Simonds Saw & Steel Co., Fitchburg, Mass.
Stearns, E. C., & Co., Syracuse, N. Y.
Wardwell Mfg. Co., Cleveland, O.

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Klein—Mathias Klein & Son, Chicago, Ill.
Peck, Stow & Wilcox Co., Southington, Conn.

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Aldrich, William K., Co., Lowell, Mass.
Cincinnati Tool Company, The, Cincinnati, Ohio.
Colt's—Batavia Clamp Co., Batavia, N. Y.
Emmert—Emmert Mfg. Co., Waynesboro, Pa.
Freeport Truck & Clamp Co., Freeport, Mich.
Goodell-Pratt Co., Greenfield, Mass.
Handy—Handy Mfg. Co., Chicago, Ill.
Hargrave, Perfection—The Cincinnati Tool Co., Cincinnati, O.
Hartford Clamp Co., Burnside, Conn.
Le Count, W. G., Tool Works, South Norwalk, Conn.
Little Giant—Adjustable Clamp Co., Chicago, Ill.
Malleable Iron Fittings Co., Branford, Conn.
Sheldon's—E. H. Sheldon & Co., Muskegon, Mich.
Starrett, L. S., Co., The, Athol, Mass.
Superior Clamp Co., Chicago, Ill.
Taylor—James L. Taylor Mfg. Co., Poughkeepsie, N. Y.

CLAMPS, STRAP.

Armstrong Bros., Tool Co., Chicago, Ill.
B. & S.—The Billings & Spencer Co., Hartford, Conn.
Cad—Standard Shop Equipment Co., Philadelphia, Pa.
Vulcan—J. H. Williams & Co., Buffalo, N. Y.

CLAMPS, TRAP.

Sanitary Company of America, Linfield, Pa.

CLAMPS, VENT CAP AND GRATE.

Hajoca—Haines, Jones & Cadbury Co., Philadelphia Pa.

CLAMPS, VISE FASTENING.

Prentiss Vise Co., New York, N. Y.
Vulcan—J. H. Williams & Co., Buffalo, N. Y.

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(See "Clips and Clamps, Wire Rope.")

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Christiansen, C., Chicago, Ill.
Handy—Handy Mfg. Co., Chicago, Ill.
Hargrave—The Cincinnati Tool Co., Cincinnati, O.
Sandusky—Sandusky Tool Corp., Sandusky, O.
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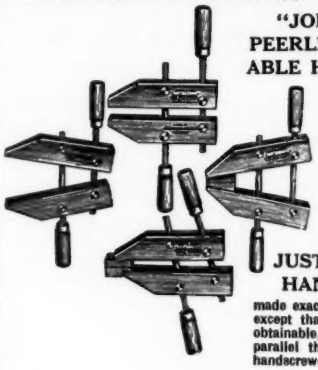

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are arranged to permit swivel action within convenient limits, permitting adjustment of jaws to conform exactly to surface being clamped.

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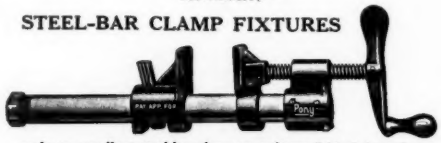

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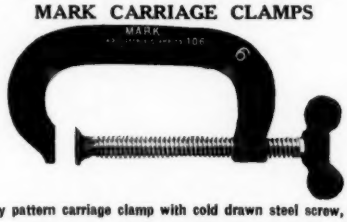

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Optimus, Acme—A. P. Munning & Co., Matawan, N. J.
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Kleenatub—Cooper Sanitary Mfg. Co., Philadelphia.
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4-All—Stephenson Chemical Co., Inc., Chicago, Ill.
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Hause—Chas. F. Hause Mfg. Co., Inc., Omaha, Neb.
Hermatic Company, Philadelphia, Pa.
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Presto—The Chamberlain-Haber Chemical Co., Cleveland, O.
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Relaxo—W. B. McVicker Co., New York, N. Y.
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Engel Mfg. Co., Syracuse, N. Y.
Flitcroft Pat.—Otto Bernz Co., Newark, N. J.
Fritz Giant—Charles Fritz, Chicago, Ill.
Good Mfg. Co., Inc., New York, N. Y.
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Electric Blower Co., Boston, Mass.
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Cooper Sanitary Mfg. Co., Philadelphia, Pa.
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Hercules Chemical Co., Inc., New York, N. Y.
Kemoshyne Products Inc., Camden, N. J. (Trade names—Kemo-Klo, Kemoline.)
Klenobole—West Disinfecting Co., New York, N. Y.
Newfect—Blue Seal Chemical Co., Roselle, N. J.
Niraj—Hercules Chemical Co., Inc., New York, N. Y.
Norway—Chamberlain-Haber Chemical Co., Cleveland, O.
Oakite—Oakley Chemical Co., New York, N. Y.
Plunkett Chemical Co., Chicago, Ill. (Trade names—Hydro Clean, Sanoform.)
Porcela-Radax Co., The, New Brighton, Pa. (Trade names—Paraco, Porcela, Tilo.)
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Samoline Corp., Chicago, Ill.
Sani-Flush—Hygienic Products Co., Canton, O.
Shield—Rochester Germicide Co., Rochester, N. Y.

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Bignall Co., Medina, N. Y.
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Federal-Huber Co., Chicago, Ill.
Fries & Co., Buffalo, N. Y.
Glenn Mfg. Co., St. Charles, Ill.
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Kokomo Brass Works, Kokomo, Ind.
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McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Milwaukee Flush Valve Co., Milwaukee, Wis.
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Phoenix Brass Foundry, Irvington, N. J.
Prier Brass Mfg. Co., Kansas City, Mo.
Reading Brass Works, Reading, Pa.
Reading Foundry & Supply Co., Reading, Pa.
Richmond Foundry & Mfg. Co., Inc., Richmond, Va.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Wade Iron Sanitary Mfg. Co., Chicago, Ill.

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American Foundry & Mfg. Co., St. Louis, Mo.
American Foundry & Pipe Co., Penn Station, Pa.
Anniston Soil Pipe Co., Anniston, Ala.
Atchison Specialty Mfg. Co., Atchison, Kans. "Asco."
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Badger—Modern Iron Works, Quincy, Ill.
Barrett—James Barrett Mfg. Co., Boston, Mass.
Bessemer Soil Pipe Works, Bessemer, Ala.
Blake Specialty Co., Rock Island, Ill.
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Clarksville Foundry & Machine Works, Clarksville, Tenn.
Columbia Sanitary Mfg. Co., Louisville, Ky.
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Detroit Brass & Malleable Works, Detroit, Mich.
East Penn Foundry Co., Macungie, Pa.
Eclipse—John C. Kupferle Foundry Co., St. Louis, Mo.
Estabrook's, R., Sons, Boston, Mass.
Eureka Mfg. Co., Indianapolis, Ind.
Fries & Co., Buffalo, N. Y.
Glenn Mfg. Co., St. Charles, Ill.
Grammes, L. F., & Sons, Allentown, Pa.
Gulf States Pipe Corp., Anniston, Ala.
Hajoca Corporation, Philadelphia, Pa.
Hammond Iron Corp., Birmingham, Ala.
Hilton Brass Foundry, Hilton, N. J.
Imico—Illinois Malleable Iron Co., Chicago, Ill.
Milford Iron Foundry, Milford, Mass.
Reading Brass Works, Reading, Pa.
Reading Foundry & Supply Co., Reading, Pa.
Riverside Foundry & Galvanizing Co., Kalamazoo, Mich.
Salem Brass & Iron Mfg. Co., Bridgeton, N. J.
Sanitary Company of America, Linfield, Pa. (Trade names—Dandy, Dixie, Improved, Sanitary.)
Stringer Bros. Co., Chicago, Ill.
Testite—Groeniger Mfg. Co., Columbus, O.
Tri-One—Central Specialty Co., Detroit, Mich.
Weiskittel, A., & Son Co., Baltimore, Md.
Zurn, J. A., Mfg. Co., Erie, Pa. (Trade names—Advance, Palmer.)

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Eberhard Mfg. Co., The, Cleveland, Ohio.
Illinois Malleable Iron Co., Chicago, Ill.
National Malleable & Steel Castings Co., Cleveland, Ohio.
O'Leary, Arthur J., Sons Co., Chicago, Ill.
Pheoll Mfg. Co., Chicago, Ill. (pins only).
Smith, H. D., & Co., The, Plantsville, Conn.
Stowell Co., The, South Milwaukee, Wis.
Victor-Peninsular Co., Detroit, Mich. (pins only).
Warlo—Ward-Love Pump Corp., Rockford, Ill.

CLIMBERS, LINEMEN'S.

(See also "Tools, Linemen's.")

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Dicke Tool Co., The, Downers Grove, Ill.
Irvington Mfg. Co., Irvington, N. J.
Klein—Mathias Klein & Son, Chicago, Ill.
Leather Parts Co., Indianapolis, Ind.
Red Devil—Smith & Hemenway Co., Inc., Irvington, N. J.
"S"—The H. D. Smith & Co., Plantsville, Conn.

CLIPPERS, BOLT, RIVET AND WIRE.

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Carolus—W. A. Whitney Mfg. Co., Rockford, Ill.
Champion Tool Co., Meadville, Pa.
Chicago Pneumatic Tool Co., New York, N. Y. "Boyer."
Federal—Crane Puller Co., Arlington, Mass.
Green River—Greenfield Tap & Die Corp., Greenfield, Mass.
Hargrave—Cincinnati Tool Co., Cincinnati, O.
Helwig—Helwig Mfg. Co., St. Paul, Minn.
Irving Mfg. & Tool Co., New York.
Landis Machine Co., Waynesboro, Pa.
Little Giant—Greenfield Tap & Die Corp., Greenfield, Mass.
Manco Mfg. Co., Bradley, Ill. "Manco."
Merriman—The H. B. Brown Co., East Hampton, Conn.
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WIRE ROPE CLIPS

Hot Galvanized or Japanned

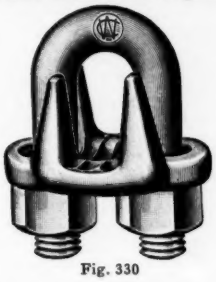


Fig. 330

Wilcox Drop Forged Wire Rope Clips have no superior.

The high horns, the dip in the design of the base, and the arrangement of the grooves in the base give our Clips a grip that will never slip.

Made for diameter of Rope from ¼" to 2".

Prompt Shipments from Finished Stock. Try Us!

Wilcox, Crittenden & Co., Inc.
333 South Main Street
MIDDLETOWN, CONN.
Established 1847

Niles-Bement-Pond Co., New York.
Peck, Stow & Wilcox Co., Southington, Conn.
Plurality Die—Mummert-Dixon Co., Hanover, Pa.
Porter, H. K., Inc., Everett, Mass. (Trade names—Allen-Randall, Boston, Easy, New Easy, O. K., 1855, Special.)
Red Devil—Rice Mfg. Co., Indianapolis, Ind.
Red Devil—Smith & Hemenway Co., Inc., Irvington, N. J.
Rivet Cutting Gun Co., Cincinnati, Ohio.
Victor—Roberts Mfg. Co., Boston, Mass.

CLIPS, AXLE AND SPRING.

American Bolt Corp., Chicago, Ill.; Detroit, Mich.; Bayonne, N. J.

CLIPS, SPRINKLER.

Newbury, Jay H., & Son, Goshen, N. Y.
Newbury Mfg. Co., The, Monroe, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, O.
Walworth Company, Boston, Mass.

CLIPS AND CLAMPS, WIRE ROPE.

(See also "Fittings, Wire Rope.")

Bourne-Fuller Co., Cleveland, O. "Climax."
Chicago Hardware & Fixture Co., Chicago, Ill.
Columbian Vise & Mfg. Co., The, Cleveland, O. "Columbian."
Crosby, Holdfast—Broderick & Bascom Rope Co., St. Louis, Mo.
Bull Dog—The Lamson & Sessions Co., Cleveland, O.
Crosby—American Hoist & Derrick Co., St. Paul, Minn.
Fischer & Hayes Rope & Steel Company, Chicago, Ill.
Lanz, M., Bolt Co., Pittsburgh, Pa.
National Malleable & Steel Castings Co., Cleveland, Ohio.
Wilcox, Crittenden & Co., Inc., Middletown, Conn.
Wood, J. R., Supply Co., Cincinnati, Ohio.

CLOCKS, ENGINE AND FURNACE ROOM.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Ansonia Clock Co., New York.
Ashcroft—The Ashcroft Mfg. Co., New York, N. Y.
Auclo Company, The, Newark, N. J.
Bristol's—Bristol Co., The, Waterbury, Conn.
Federal Gauge Co., Chicago, Ill.

Foxboro Co., Inc., The, Foxboro, Mass.
Howard, E., Clock Co., Boston, Mass.
Little Janitor—Tillary's Little Janitor Clock Co., Newark, N. J.
Lonergan—Lonergan Co., J. E., Philadelphia, Pa.
Marsh & Co., Jas. P., Chicago, Ill.
National Gauge Co., Brooklyn, N. Y.
Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
Star—Star Brass Mfg. Co., Boston, Mass.
Thomas, Seth, Clock Co., **New York, N. Y.**
United States Gauge Co., New York, N. Y.
Waterbury Clock Co., Waterbury, Conn.

CLOCKS, WATCHMEN'S.

Boston Eco—Eco Clock Co., Boston, Mass.
Chicago Watchman's Clock Company, Inc., Chicago, Ill.
Detex Corporation, Chicago, Ill.
Howard, E., Clock Co., Boston, Mass.
Pettes & Randall Co., N. Y. (Trade names—American, Cleveland.)
Rowe, A. C., & Son, Inc., New York.
Safety Fire Extinguisher Co., The, New York, N. Y.
Simplex—Simplex Time Recorder Co., Gardner, Mass.

CLOSETS, WATER.

(See "Water Closets.")

CLOTH, ASBESTOS.

Allbestos Corporation, Philadelphia, Pa.
Asbestos—American Asbestos Co., Norristown, Pa.
Asbestos Textile Co., Inc., New York, N. Y.
Asbestos Fibre Spinning Co., North Wales, Pa.
Atlantic Asbestos Co., Philadelphia, Pa.
Ferodo & Asbestos, Inc., New Brunswick, N. J.
Garco—General Asbestos & Rubber Co., Charleston, S. C.
Johns-Manville Corporation, New York, N. Y. "J. M."
Keasbey & Mattison Co., Ambler, Pa.
National Asbestos Co., Germantown, Phila., Pa.
Standard Asbestos Mfg. Co., Chicago, Ill.
Usaco—United States Asbestos Co., Manheim, Pa.
Waite-Wild Asbestos Co., Framingham, Mass.
Watson, H. F., Erie, Pa.

CLOTH, BRATTICE, FIREPROOF AND WATERPROOF.

American Brattice Cloth Co., Warsaw, Ind.
American Wire & Cable Co., Inc., The, New York, N. Y. (imported.)
Asbestos Products Co., Chicago, Ill.
Johnston-Morehouse-Dickey Co., Pittsburgh, Pa.

CLOTH, EMERY.

(See "Paper and Cloth, Emery.")

CLOTHING, SAFETY, ASBESTOS, ETC.

American Asbestos Co., Norristown, Pa.
Asbestos Textile Co., Inc., New York, N. Y.
Holcomb Safety Garment Co., Chicago, Ill.
Johns-Manville Corporation, New York, N. Y.
Protexa—The Safety Equipment Service Co., Cleveland, O.
Pulmosan Safety Equipment Co., Brooklyn, N. Y.
Wheeler Mfg. Co., F. H., Chicago, Ill.

CLOTHS, FILTER, FOR OIL FILTERS.

Perfection Tire & Rubber Co., Wabash, Ind.
Shriver—Shriver, T., & Co., Harrison, N. J.

CLOTHS, MACHINERY WIPING.

(See also "Wipers, Machine.")

Absorbent Wiping Materials Co., Chicago, Ill.
Baylis Sanitary Supply Co., Chicago, Ill.
Blakely, John & Son, Philadelphia, Pa.
Blue Grass—Louisville Sanitary Wipers Co., Inc., Louisville, Ky.
Champion—Colorado Sanitary Wiping Cloth Co., Denver, Colo.
Chicago Sanitary Rag Co., The, Chicago, Ill.
Clapp, Harry D. B., & Co., Inc., Philadelphia, Pa.
Consumers Waste & Wiper Co., Chicago, Ill.
F. P. S.—The Franklin Paper Stock Co., Franklin, O.
Fidelity Brand—J. Milton Hagy Waste Works, Philadelphia, Pa.
Fitts, Frank E., Mfg. & Sup. Co., Boston, Mass.
Frankford Waste Co., Philadelphia, Pa.
Garvan, P., Inc., Hartford, Conn.
General Fibre Co., Chicago, Ill.
Hoffman-Corr Mfg. Co., Philadelphia, Pa.
Keystone Sanitary Supply Co., Greensburg, Pa.
Kleen Kwality Kloths—Aaron Ferer & Sons, St. Louis, Mo.
Lockport Mfg. Co., Depew, N. Y.
Louisville Sanitary Wipers Co., Inc., Louisville, Ky., "Blue Grass."
Marathon—G. Mathes Co., St. Louis, Mo.
Mont, A. W., & Co., Inc., Hartford, Conn.
New Orleans Waste Mills, New Orleans, La.
Ohio Sanitary Wipers Co., Toledo, O.
Oil and Waste Saving Machine Co., Philadelphia, Pa.
Robin—D. Robinson & Sons, Detroit, Mich.
Royal—Royal Mfg. Co., Rahway, N. J.
Schapiro, S. & Sons, Baltimore, Md.
Scheinman, I. L., & Co., Detroit, Mich.
Scheinman-Neaman Co., Pittsburgh, Pa.
Standard Rewashed Wipers Co., Chicago, Ill.
Star Sanitary Rag Co., Chicago, Ill.
Three W—Wisconsin Waste & Wiper Co., Milwaukee, Wis.
Tip Top—Sanitary Washed Wiper Co., Inc., Indianapolis, Ind.
Wallace Bros. Waste Co., Chicago, Ill.

CLOTHS, PLUMBERS' WIPING.

Bernz, Otto, Co., Newark, N. J.
Butterworth Supply Co., Philadelphia, Pa.
Capitol—Watson-Penfield Corp., New Bedford, Mass.
Double Arrow—H. M. Burke & Bro., Philadelphia, Pa.
Frank Bros., New York, N. Y.
Johnson, Wm., Firm of, Newark, N. J.
National Tool Co., New York, N. Y.
Nye—The Nye Tool & Machine Works, Chicago, Ill.
Peerless Mfg. & Supply Co., New York, N. Y.
San-Knit—Standard Waste Mfg. Co., Cleveland, O.
Smooth Wiper—Kemoshyne Products, Inc., New York.
Starbuck, R. M., & Sons, Hartford, Conn.
Williams, Geo. E., Minneapolis, Minn.
Woodward-Wanger Co., Philadelphia, Pa.

CLUTCHES, COMBINED FRICTION & POSITIVE DRIVE.

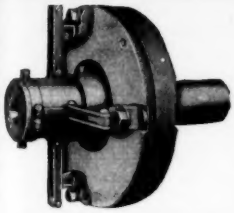
Brown, A. & F., Co., The, Elizabethport, N. J.
O. K.—O. K. Clutch & Machinery Co., Columbia, Pa.

CLUTCHES, COUNTERSHAFT.

Brown, A. & F., Co., The, Elizabethport, N. J.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Kinney—Kinney Mfg. Co., Boston, Mass.
Link-Belt Co., Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
Weller Mfg. Co., Chicago, Ill.

CLUTCHES, FRICTION.

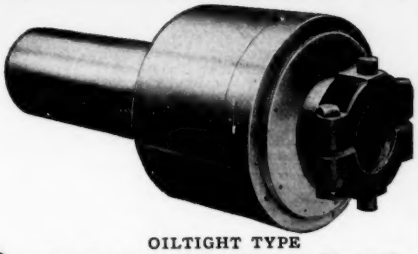
Allis-Chalmers Co., Milwaukee, Wis.
Baechle Pat.—Standard Pulley Co., Cincinnati, O.
Baldridge—The Brown Clutch Co., Sandusky, O.
Barnard & Leas Mfg. Co., Moline, Ill.
Bond Foundry & Machine Co., Manheim, Pa.
Brightman Machine Co., Cleveland, O.
Brown, A. & F., Co., The, Elizabethport, N. J.
Brown Engineering Co., Reading, Pa.
Caldwell & Son Co., H. W., Chicago, Ill.
Caldwell, W. E., Co., Inc., Louisville, Ky.
Carroll, L. W., Mfg. Co., Batavia, O.
Chicago—Chicago Pulley & Shafting Co., Chicago, Ill. (ball bearing).
Cleveland—Western Engineering & Mfg. Co., Chicago, Ill.
Competitor, Interchange, Oil Tight—Kinney Mfg. Co., Boston, Mass.
Constant XX Century Corp., Bloomington, Ill.
Conway—The Conway Clutch Co., Cincinnati, O.
Cresson-Morris Co., Philadelphia, Pa.
Diamond—Diamond Iron Works, Minneapolis, Minn.
Dodge Solid—Dodge Mfg. Corp., Mishawaka, Ind.
Dow, L. B., Inc., Keene, N. H.
Edgemont—Edgemont Machine Co., Dayton, O.
E. G. I.—Brown Engineering Co., Reading, Pa.
Erie Standard—Erie Clutch & Pulley Co., Erie, Pa.
Excelsior Tool & Machine Co., East St. Louis, Ill.
Falls—Falls Clutch & Machinery Co., Kent, O.
Frisbie—Eastern Machinery Co., New Haven, Conn.
Fulton Foundry & Machine Co., Cleveland, O. "Airdale."
Giant—The Brown Clutch Co., Sandusky, O.
Hanson—Hanson Clutch & Machinery Co., Tiffin, O.
Hill, Hub, Worrall—American Tool & Machine Co., Boston, Mass.
Hill (Smith Type)—The Hill Clutch Machine & Foundry Co., Cleveland, O.
Hilliard—Hilliard Corporation, Elmira, N. Y.
Holyoke—Holyoke Machine Co., Worcester, Mass.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Hunter—Jas. Hunter Machine Co., North Adams, Mass.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Johns-Manville Corp., New York, N. Y.
Kinney—Kinney Mfg. Co., Boston, Mass.
Lasure Friction Clutch Co., Watertown, Wis.
Lemley—W. A. Jones Foundry & Machine Co., Chicago, Ill.
Lindahl, Henry, Machine Co., Chicago, Ill.
Link-Belt Company, Chicago and Philadelphia.
List, E. J., Mfg. Co., Havana, Ill.
Mason & Co., Inc., Volney W., Providence, R. I.
Medart Company, The, St. Louis, Mo.
Milwaukee Shaper Co., Milwaukee, Wis.



INTERCHANGE TYPE
Cut-off coupling or pulley clutch 2 to 300 H. P. per hundred R. P. M.

TRADE MARK
Kinney
REG. U.S. PAT. OFF.

Friction Clutches
Pulley or Shaft Cut-off
2 to 2000 H. P.
Kinney Manufacturing Co.
Boston, Mass.



OILTIGHT TYPE
Cut-off coupling or pulley clutch. The smallest clutch per horse power, 2 to 200 H. P. per hundred R. P. M.

Moore-Master Mfg. Co., Chicago, Ill.
Moore & White Co., The, Philadelphia, Pa.
Mule-Pull—Brown Engineering Co., Reading, Pa.
Nordyke & Marmon Co., Indianapolis, Ind.
Oesterlein—Oesterlein Machine Co., The, Cincinnati, Ohio.
O. K.—O. K. Clutch & Machinery Co., Columbia, Pa.
Peerless—Essmueller Mill Furnishing Co., St. Louis, Mo.
Production Machine Co., Greenfield, Mass.
Pusey & Jones Co., Wilmington, Del.
The Reeves—Reeves Pulley Co., Columbus, Ind.
Schultz, A. L., & Son, Chicago, Ill.
Shaffer Clutch—Mollenberg-Betz Machine Co., Buffalo, N. Y.
Sinclair-Scott Co., The, Baltimore, Md.
Sprout, Waldron & Co., Muncy, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Tester—Decatur Foundry, Furnace & Machine Co., Decatur, Ind.
Universal Giant—T. B. Wood Sons Company, Chambersburg, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Westlund—The Washburn Shops, Worcester, Mass.
Wood, T. B., Sons Co., Chambersburg, Pa. "Wood-Fafnir."
Wolf Co., The, Chambersburg, Pa.
Worrall—American Tool & Machine Co., Boston, Mass.
Worrall—Kinney Mfg. Co., Boston, Mass.

CLUTCHES, FRICTION, BALL BEARING, ETC.

Chapman—Transmission Ball Bearing Co., Inc., Buffalo, N. Y.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hilliard—Hilliard Corporation, Elmira, N. Y.
Kinney—Kinney Mfg. Co., Boston, Mass.
S. K. F. Industries, Inc., New York, N. Y.
Weller Mfg. Co., Chicago, Ill.
Wolf Co., The, Chambersburg, Pa.
Wood, T. B., Sons Co., Chambersburg, Pa. "Wood-Fafnir."
Universal Giant—T. B. Wood, Sons Company, Chambersburg, Pa.

CLUTCHES, FRICTION, COUNTERSHAFT.

Brown, A. & F., Co., The, Elizabethport, N. J.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hilliard—Hilliard Corporation, Elmira, N. Y.
Link-Belt Co., Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
Standard—Erie Clutch & Pulley Co., Erie, Pa.
Standard (Baechle Pattern). The Standard Pulley Co., Cincinnati, O.
Weller Mfg. Co., Chicago, Ill.

CLUTCHES, FRICTION, GAS ENGINE.

Bierman—Strite Governor Pulley Co., Minneapolis, Minn.
Brown, A. & F., Co., The, Elizabethport, N. J.
Brown Engineering Co., Reading, Pa.
Giant—The Brown Clutch Co., Sandusky, O.
Hanson Clutch & Machinery Co., Tiffin, O.
Hilliard—Hilliard Corporation, Elmira, N. Y.
Hill (Smith Type)—The Hill Clutch Machine & Foundry Co., Cleveland, O.
J. M. Brickline—Johns-Manville, Inc., New York, N. Y.
Falls Clutch & Machinery Co., Kent, O.
Lemley—W. A. Jones Foundry & Machine Co., Chicago, Ill.
List, E. J., Mfg. Co., Havana, Ill.
Medart Company, The, St. Louis, Mo.
Minster Machine Co., Minster, O.
Moore-Master Mfg. Co., Chicago, Ill.

CLUTCHES, JAW.

(See also Coupling, Shaft, Jaw Clutch.)

Barnard & Leas Mfg. Co., Moline, Ill.
Brown, A. & F., Co., The, Elizabethport, N. J.
Giant—The Brown Clutch Co., Sandusky, O.
Hanson Clutch & Machinery Co., Tiffin, O.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jones—W. A. Jones Foundry & Machine Co., Chicago, Ill.
Latimer, Robert L., & Co., Philadelphia, Pa.
Link-Belt Company, Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
Weller Mfg. Co., Chicago, Ill.
Wolf Co., The, Chambersburg, Pa.

CLUTCHES, LINE SHAFT.

Brown, A. & F., Co., The, Elizabethport, N. J.
Giant—The Brown Clutch Co., Sandusky, O.
Havana Mfg. Co., Havana, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hilliard—Hilliard Corporation, Elmira, N. Y.
Kinney—Kinney Mfg. Co., Boston, Mass.
Link-Belt Company, Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
Weller Mfg. Co., Chicago, Ill.

CLUTCHES, SAFETY, MAGNETIC.

Cutler-Hammer Mfg. Co., Milwaukee, Wis.
Hagman Machine Works, Syracuse, N. Y.

COATING, BOILER.

American Lastite Co., Chicago, Ill.
Dampney Co. of America, Boston, Mass.
National—National Boiler Specialties Co., Elgin, Ill.
Standard Chemical Corp, Kalamazoo, Mich.

COATING, UNDERGROUND PIPE.

National—National Tube Co., Pittsburgh, Pa.

COCKS, ACID METAL.

Cleveland Brass Mfg. Co., The, Cleveland, Ohio. "Barrett Acimet."
Duriron—Duriron Co., Inc., The, Dayton, O.
Eastwood Wire Mfg. Co., Belleville, N. J.
Improved Appliance Co., Brooklyn, N. Y.
Perkes, Chas., Co., Philadelphia, Pa.
Simmons Co., John, New York, N. Y.
Walworth Company, Boston, Mass.

COCKS (OR STOPS), AIR.

Allen Mfg. Co., W. D., Chicago, Ill.
American—American Injector Co., Detroit, Mich.
American Lubricator Co., Detroit, Mich.
American Safety Lamp & Mine Supply Co., Scranton
American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Beaton & Cadwell Mfg. Co., New Britain, Conn.
Bishop & Babcock Co., Cleveland, Ohio.
Buckeye Iron & Brass Works, Dayton, Ohio.
Capitol—Capitol Brass Works, Detroit, Mich.
C. C.—Crane Co., Chicago, Ill.
Cleveland Faucet Co., The, Cleveland, O.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Detroit Brass & Malleable Works, Detroit, Mich.
Edelman—E. Edelman & Co., Chicago, Ill.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Essex Brass Corp., Detroit, Mich.
Exeter Brass Works, Exeter, N. H.
Farnan Brass Works Co., The, Cleveland, O.
Flannery, P. J., Co., New Britain, Conn.
Fries & Co., Buffalo, N. Y.

Garratt & Co., W. T., San Francisco, Cal.
General Brass Company, Detroit, Mich.
Hancock Mfg. Co., Charlotte, Mich.
Haydenville Co., The, Haydenville, Mass.
HaysMfg. Co., Erie, Pa.
Improved Appliance Co., Brooklyn, N. Y.
Johnson Service Co., Milwaukee, Wis.
Lunkenheimer Co., The, Cincinnati, O.
National Brass Mfg. Co., Rochester, N. Y.
Ohio Injector Co., The, Wadsworth, O.
Dripless—Penberthy Injector Co., Detroit, Mich.
Penn—The Penn Engineering Co., Philadelphia, Pa.
Perkes, Charles, Co., The, Philadelphia, Pa.
Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
Powell Co., The Wm., Cincinnati, O.
Powhatan Brass & Iron Wks., Ranson, W. Va.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Standard Brass & Iron Works, Milwaukee, Wis.
Sterling & Skinner Mfg. Co., The, Detroit, Mich.
Swift—The Swift Lubricator Co., Elmira, N. Y.
United—United Brass Mfg. Co., Cleveland, O.
Walworth Company, Boston, Mass.
Westinghouse Traction Brake Co., Pittsburgh, Pa.
Williams, D. T., Valve Co., The, Cincinnati, O.

COCKS, BALL.

A. L.—Exeter Brass Works, Exeter, N. H.
American Foundry & Mfg. Co., St. Louis, Mo.
Ampinco—American Pin Co., Waterbury, Conn.
ARRG—Union Metal Works, Chelsea, Mass.
Baltimore—Baltimore Valve Corp., Baltimore, Md.
Boston Brass Co., Waltham, Mass. (Trade names—B. B., Bronx.)
Buckeye Iron & Brass Works, Dayton, O.
Burlington Brass Works, Burlington, Wis.
Central Brass Mfg. Co., Cleveland, O.
Clark—W. J. Hyland Mfg. Co., Springfield, Mass.
Clover—J. C. Eichman Mfg. Co., Baltimore, Md.
Clow, James B., & Sons, Chicago, Ill.
Columbus Brass Co., The, Columbus, O. (Trade names—Columbus, Diaphragm.)
Crane Co., Chicago, Ill.
Curtin, A. F., Valve Co., Medford, Mass.
Delany—Coyne & Delany Co., Brooklyn, N. Y.
Detroit Lubricator Co., Detroit, Mich.
Dewey—Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Edwardsville Brass Co., Edwardsville, Ill.
Engel Mfg. Co., Syracuse, N. Y.
Enterprise Brass Works, Muskegon, Mich.
Everhart Brass Works, Scranton, Pa.
Exeter Brass Works, Exeter, N. H. (Trade names—A. L., N. H., Ryan.)
Federal—Federal-Huber Co., Chicago, Ill.
Frost Mfg. Co., Kenosha, Wis.
Gaco—Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
Garrison-Heiland Corp., New York.
General Brass Company, Detroit, Mich.
Good Mfg. Co., Inc., New York, N. Y.
Gopher—Union Brass & Metal Mfg. Co., St. Paul, Minn.
Hajoca Corporation, Philadelphia, Pa.
Hartford—American Brass & Copper Co., New York, N. Y.
Hartford—Belknap Mfg. Co., Bridgeport, Conn.
Haydenville Co., The, Haydenville, Mass.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Hogan Mfg. Co., The, Hartford, Conn.
Ideal—Tillotson Humidifier Co., Providence, R. I.
Inbraco—Indiana Brass Co., The, Frankfort, Ind.
J. R. S. Specialties Mfg. Co., Inc., New York, N. Y. "Premier."
L. B. Brass Co., Peabody, Mass.
Mansfield—Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
McGraw, R., Syracuse, N. Y.
McShane Bell Foundry Co., Baltimore, Md. (Trade names—Hartford, Improved.)
Miller, Charles A., Co., Sturgis, Mich.
Monarch—Republic Brass Co., Cleveland, O.
M.-V. B.—Morency-Van Buren Mfg. Co., Sturgis, Mich.
Mueller Co., Decatur, Ill.
N. C.—Joseph H. Young Co., Boston, Mass.
Non-Leak—Plumbing Specialties Co., Camden, N. J.
Northern Indiana Brass Co., Elkhart, Ind. (Trade names—Gilmore, Mansfield, Nibco.)
Northern Tool Co., Inc., Utica, N. Y.
Ohio Brass Co., Mansfield, O.
Pacific Faucet Mfg. Co., Los Angeles, Cal.
P. B. H.—The Paul B. Huyette Co., Philadelphia, Pa.
Peck Bros. & Co., New Haven, Conn. (Trade names—Erie, Nova.)
Peerless Selling Co., Evansville, Ind.
Powhatan Brass & Iron Works, Ranson, W. Va.
Quaturn—Chicago Faucet Co., Chicago, Ill.
Reliance—The Reliance Gauge Column Co., Cleveland, O.
Rival—A. Y. McDonald Mfg. Co., Dubuque, Ia.
R. & F.—Ryan & Fitzpatrick, Inc., Troy, N. Y.
Robertshaw Thermostat Co., Youngwood, Pa. (Trade names—Excelsior, Mansfield, Pittsburgh.)
Rockford Brass Works, Rockford, Ill.
Ryan, A. L.—Thos. W. Ryan, Concord Jct., Mass.
Sacramento—W. T. Garratt & Co., San Francisco, Cal.
Sherwood Brass Works, Detroit, Mich.
Sherwood Mfg. Co., Buffalo, N. Y.
Success—I. X. L. Pump & Mfg. Co., Inc., Philadelphia, Pa.
Swartout Co., The, Cleveland, O. (regrinding.)
Sylento—Woodward-Wanger Co., Philadelphia, Pa.
Trenton Brass & Machine Co., The, Trenton, N. J.
Tryco Products, Inc., Westfield, Mass. (Trade names—Jiffy, Tryco, U. T. Co.)
Tuxeda—Franklin Williams, New York, N. Y.
United States Gauge Co., New York, N. Y.
U. S.—Julian d'Este Co., Boston, Mass.
VanArCo—Van Arnam Mfg. Co., Ft. Wayne, Ind.
Walworth Company, Boston, Mass.
Ward-Curley-Sanitas—Sanitas Mfg. Co., Boston, Mass.
Waterbury Mfg. Co., Waterbury, Conn.
Webco—F. W. Webb Mfg. Co., Boston, Mass.
Williams Gauge Co., The, Pittsburgh, Pa.
Williams & Son, E. A., Jersey City, N. J.
Wolff Mfg. Corp., Chicago, Ill.
Z-B—Kalamazoo Sanitary Mfg. Co., Kalamazoo, Mich.

COCKS, BALL, HIGH PRESSURE.

Exeter Brass Works, Exeter, N. H. (Trade names—A. L., Ryan.)
American Pin Co., The, Waterbury, Conn.
B. B.—Boston Brass Co., Waltham, Mass.
General Brass Company, Detroit, Mich.
Hogan Mfg. Co., The, Hartford, Conn.
Perkes, Chas., Co., Philadelphia, Pa.
Pittsburgh—Woodward-Wanger Co., Philadelphia, Pa.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
U. S.—Julian d'Este Co., Boston, Mass.

COCKS, BALL, FOR LARGE TANKS.

B. B.—Boston Brass Co., Waltham, Mass.
Boekel, Wm., & Co., Philadelphia, Pa.
Douglas, John, Co., Cincinnati, O.
Gopher—Union Brass & Metal Mfg. Co., St. Paul, Minn.
Hansen Brass Mfg. Co., Grand Rapids, Mich.
Laughlin, Thos., Co., Portland, Me.
Paragon—Paragon Brass Mfg. Co., Cleveland, O.
Rundle-Spence Mfg. Co., Milwaukee, Wis.
Ryan—Exeter Brass Works, Exeter, N. H.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.

COCKS, BARBER SLAB, FULLER AND COMPRESSION COMBINED.

Faultless—J. J. Ryan & Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
S & K Rainbow—Street & Kent Mfg. Co., Chicago, Ill.

COCKS (OR FAUCETS), BARREL.

Detroit Brass & Malleable Works, Detroit, Mich.
Exeter Brass Works, Exeter, N. H.
General Brass Company, Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Morrison Bros., Dubuque, Iowa.
Okay—E. Stebbins Mfg. Co., Springfield, Mass.
Powhatan Brass & Iron Wks., Ranson, W. Va.
Roberts Brass Mfg. Co., Detroit, Mich.
Universal—Landers, Frary & Clark, New Britain, Conn.
W. & B.—Wilson & Bennett Mfg. Co., Chicago, Ill.

COCKS (OR FAUCETS), BASIN & BATH, CONCEALED.

Beneke Mfg. Co., Chicago, Ill.
Central Brass Mfg. Co., Cleveland, O.
Dick Bros., Inc., Reading, Pa.
Edwardsville Brass Co., Edwardsville, Ill.
Federal-Huber Co., Chicago, Ill.
Goetz Brass Co., Chicago, Ill.
Hudson Brass Works, Brooklyn, N. Y.
Locke, Stevens & Co., Boston, Mass.
Morgan Brass Mfg. Co., The, Cleveland, O.
Murray & Sorensen, New York, N. Y.
Quaturn—Chicago Faucet Co., Chicago, Ill.
Rundle-Spence Mfg. Co., Milwaukee, Wis.
Speakman Co., Wilmington, Del.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.

COCKS (OR FAUCETS) BASIN, BRACKET.

Burlington Brass Works, Burlington, Wis.
Capitol Brass Works, Detroit, Mich.
Century Brass Works, Inc., Belleville, Ill.
Clow, James B., & Sons, Chicago, Ill.
Elgin Brass Co., New York, N. Y.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Globe Brass Mfg. Co., Cleveland, O.
Gopher—Union Brass & Metal Mfg. Co., St. Paul, Minn.

Haydenville Co., The, Haydenville, Mass.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Jenkins Mfg. Co., Inc., Bloomfield, N. J.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Quaturn—Chicago Faucet Co., Chicago, Ill.
Rundle Mfg. Co., Milwaukee, Wis.
Street & Kent Mfg. Co., Chicago, Ill.
Wolff Mfg. Corp., Chicago, Ill.

COCKS, BASIN, PEDAL.

Sanitas Mfg. Co., Boston, Mass.
Speakman Co., Wilmington, Del.

COCKS (AND BIBBS), BASIN, SINK, ETC., COMPRESSION.

Acme Brass Works, Detroit, Mich.
American Brass & Copper Co., The, New York, N. Y.
American Brass Mfg. Co., The, Cleveland, O.
American Foundry & Mfg. Co., St. Louis, Mo.
Arno—Street & Kent Mfg. Co., Chicago, Ill.
Baltimore—Baltimore Valve Corp., Baltimore, Md.
Bashlin Co., The, Warren, Pa.
Belknap Mfg. Co., The, Bridgeport, Conn.
Buffalo—Fries & Co., Buffalo, N. Y.
Burlington Brass Works, Burlington, Wis.
Capitol Brass Works, Detroit, Mich.
Chasper—Charles Perkes Co., Philadelphia, Pa.
Cochrane, J. A., Brass Mfg. Co., The, Cleveland, O.
Columbia—Speakman Co., Wilmington, Del.
Crane Co., Chicago, Ill. (Trade names—Agilis, Cycle, Telsa.)
Dearborn Brass Co., Cedar Rapids, Ia.
Detroit Sanitary Supply Co., Detroit, Mich. (Trade names—Clean Sweep, Colonial, Gloria, Penn.)
Dick Bros., Inc., Reading, Pa.
Edwardsville Brass Co., Edwardsville, Ill.
Elgin Brass Co., New York, N. Y.
Eljer Co., Ford City, Pa.
Empire Brass Mfg. Co., The, Cleveland, O.
Enterprise Brass Works, Muskegon, Mich.
Exeter Brass Works, Exeter, N. H.
Farnan Brass Works Co., The, Cleveland, O.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Federal-Huber Co., Chicago, Ill. (Trade names—Fuller, Government.)
Fisher Brass Co., The, Bellefontaine, O.
Flannery, P. J., Co., New Britain, Conn.
Fleck Bros. Co., Cleveland, O. (Trade names—Special, Victor.)
Garratt W. T., & Co., San Francisco, Cal.
Gem Brass Mfg. Co., Cleveland, O.
General Brass Company, Detroit, Mich.
Gibson Bros. Mfg. Co., North Chicago, Ill.
Globe Brass Mfg. Co., The, Cleveland, O.
Goetz Brass Co., Chicago, Ill.
Gopher—Union Brass & Metal Mfg. Co., St. Paul, Minn.
Hajoca Corporation, Philadelphia, Pa.
Hansen Brass Mfg. Co., Grand Rapids, Mich.
Haydenville Co., The, Haydenville, Mass. (Trade names—Acme, Quick-Ope, Sanidome.)
Hays Mfg. Co., Erie, Pa.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Krenz, Oscar, Copper & Brass Works, Inc., The, San Francisco, Cal.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
McShane Bell Foundry Co., Baltimore, Md.
Meyer-Sniffen Co., The, New York, N. Y. (Trade names—Alpha, Pemberton.)
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Mott, J. L., Iron Works, Trenton, N. J. (Trade names—Bronx, Harlem.)
Mueller Co., Decatur, Ill.
Oberndorf Mfg. Co., The, Pittsburgh, Pa.
Pacific Faucet Mfg. Co., Los Angeles, Cal.
Peck Bros. & Co., New Haven, Conn.
Paragon—Paragon Brass Mfg. Co., Cleveland, O.
Penn—East Penn Foundry Co., Macungie, Pa.
Perfect—Kitson Co., Philadelphia, Pa.
Pilot—Cooper Sanitary Mfg. Co., Philadelphia, Pa.
Powhatan Brass & Iron Wks., Ranson, W. Va.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Prier Brass Mfg. Co., The, Kansas City, Mo.
Quaturn—Chicago Faucet Co., The, Chicago, Ill.
Richter Brass Co., The, Cincinnati, O.
Rick—The Rickersberg Brass Co., Cleveland, O.
Roberts Brass Co., Inc., Milwaukee, Wis.
Roberts Brass Mfg. Co., Detroit, Mich.
Rochester—The Atkinson Co., Rochester, N. Y.
Royal Brass Mfg. Co., Cleveland, O.
Rundle Mfg. Co., Milwaukee, Wis.
Servisal—Woodward-Wanger Co., Philadelphia, Pa.
Schulte Brass Mfg. Co., Norwood, Cincinnati, O.
Schwander Brass Mfg. Co., St. Louis, Mo.
Sherman, H. B., Mfg Co., Battle Creek, Mich.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Standard Brass Casting Co., Oakland, Calif.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Stebbins, E., Mfg. Co., Springfield, Mass. (Trade names—Okay, Soderlund.)
Sterling Brass Co., The, Cleveland, O.
Sterling—Sterling Faucet Co., Newcomerstown, O.
Swan Neck—Thos. Savill's Sons, Philadelphia, Pa.
Trenton Brass & Machine Co., The, Trenton, N. J.
Trojan Brass Mfg. Co., The, Cincinnati, O.
United Brass Mfg. Co., Cleveland, O.
Universal—Landers, Frary & Clark, New Britain, Conn.
Utica Valve & Fixture Co., Utica, N. Y.
Watrous—Imperial Brass Mfg. Co., Chicago, Ill
Weiskittel, A., & Son Co., Baltimore, Md.
Welsh Cut-Off—Wm. Welsh, Cincinnati, O.
Wolff Mfg. Corp., Chicago, Ill.

COCKS (AND BIBBS), BASIN, SINK, ETC., FULLER.

American Brass Mfg. Co., The, Cleveland, O.
Belfield, H., Co., Philadelphia, Pa.
Buffalo—Fries & Co., Buffalo, N. Y.
Burlington Brass Works, Burlington, Wis.
Central Brass Mfg. Co., The, Cleveland, O.
Clean Sweep—Detroit Sanitary Supply Co., Detroit, Mich.
Crane Company, Chicago, Ill. (Trade names—Eclipse, Empress, Justrite.)
Dearborn Brass Co., Cedar Rapids, Ia.
Empire Brass Mfg. Co., The, Cleveland, O.
Extra Pattern—Wolff Mfg. Corp., Chicago, Ill.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Federal-Huber Co., Chicago, Ill.
Fisher Brass Co., The, Bellefontaine, O.
Gaco—Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
Garratt, W. T., & Co., San Francisco, Cal.
Globe Brass Mfg. Co., The, Cleveland, O.
Gopher—Union Brass & Metal Mfg. Co., St. Paul, Minn.
Haydenville Co., The, Haydenville, Mass.
Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Juneau—Hoffmann & Billings Mfg. Co., Milwaukee.
Loyal Brass Co., Cleveland, O.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Meyer-Sniffen Co., The, New York, N. Y. (Trade names—Em-Ess, York.)
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Milwaukee Flush Valve Co., Milwaukee, Wis.
Mott, J. L., Iron Works, The, Trenton, N. J.
Mueller Co., Decatur, Ill.
Oberndorf Mfg. Co., The, Pittsburgh, Pa.
Peck's Improved—The Peck Bros. & Co., New Haven, Conn.
Perfection—Crampton-Farley Brass Co., Kansas City, Mo.
Perkes, Chas., Co., Philadelphia, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Richter & Co., Cincinnati, O.
Rundle Mfg. Co., Milwaukee, Wis.
Rundle-Spence Mfg. Co., Milwaukee, Wis.
Schwander Brass Mfg. Co., St. Louis, Mo.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Universal—Landers, Frary & Clark, New Britain, Conn.
Walworth Company, Boston, Mass.
Weiskittel, A., & Son, Baltimore, Md.
Wolff Mfg. Corp., Chicago, Ill.
Woodmere—Standard Sanitary Mfg. Co., Pittsburgh, Pa.

COCKS (AND BIBBS), BASIN, SINK, ETC., QUICK OPENING COMPRESSION.

Acme Brass Works, Detroit, Mich.
American Sanitary Mfg. Co., Abingdon, Ill.
Apex Brass Mfg. Co., Cleveland, O.
Atkinson Co., The, Rochester, N. Y.
Capitol Brass Works, Detroit, Mich.
Central Brass Mfg. Co., Cleveland, O.
Century Brass Wks., Inc., Belleville, Ill.
Clow, James B., & Sons, Chicago, Ill.
Detroit Sanitary Supply Co., Detroit, Mich.
Elgin Brass Co., New York, N. Y.
Empire Brass Mfg. Co., Cleveland, Ohio.
Faultless—J. J. Ryan & Co., Chicago, Ill. (Boston, Doherty.)
Fries & Co., Buffalo, N. Y.
General Brass Corporation, Detroit, Mich.
Gibson Bros. Mfg. Co., North Chicago, Ill.
Globe Brass Mfg. Co., Cleveland, O.
Goetz Brass Co., Chicago, Ill.
Gopher—Union Brass & Metal Mfg. Co., St. Paul, Minn.
Hajoca Corporation, Philadelphia, Pa.
Haydenville Co., Haydenville, Mass.
Kwik—J. A. Cochrane Brass Mfg. Co., Cleveland, O.
Kwik-Ac—Royal Brass Mfg. Co., Cleveland, O.
Loyal Brass Co., Cleveland, O.
Lukomski Brothers Co., Detroit, Mich.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Morgan Brass Mfg. Co., The, Cleveland, O.
Oberndorf Mfg. Co., Pittsburgh, Pa.
Paragon—Paragon Brass Mfg. Co., Cleveland, O.
Perkes, Chas. Co., Philadelphia, Pa.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Prier Brass Mfg. Co., Kansas City, Mo.
Quaturn—Chicago Faucet Co., The, Chicago, Ill.
Quickpression—Central Brass Mfg. Co., Cleveland.
Rapidac—Mueller Co., Decatur, Ill.

Rickersberg Brass Co., Cleveland, O. (Trade names —Presto, Rick, Quick.)
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Sanidome—Haydenville Co., Haydenville, Mass.
Schwander Brass Mfg. Co., St. Louis, Mo.
Speakman Co., Wilmington, Del.
Stebbins, E., Mfg. Co., Springfield, Mass. (Trade names—Okay, Quickco.)
Sterling Brass Co., Cleveland, O.
Sterling—Sterling Faucet Co., Newcomerstown, O.
Swan Neck—Thos. Savill's Sons, Philadelphia, Pa.
United Brass Mfg. Co., Cleveland, O.
Walworth Company, Boston, Mass.
Watrous—Imperial Brass Mfg. Co., Chicago, Ill.
W-W Junior—Woodward-Wanger Co., Philadelphia, Pa.

COCKS (OR FAUCETS), BASIN, SWING.

Burlington Brass Works, Burlington, Wis.
Douglas, John, Co., Cincinnati, O.
Farnan Brass Works, Cleveland, O.
Faultless— J. J. Ryan & Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Jenkins Mfg. Co., Inc., Bloomfield, N. J.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Mott, J. L., Iron Works, Trenton, N. J.
Peck Bros. & Co., New Haven, Conn.
Perkes, Chas., Co., Philadelphia, Pa.
Quaturn—The Chicago Faucet Co., Chicago, Ill.
Walworth Company, Boston, Mass.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Sanitas Mfg. Co., Boston, Mass.
Street & Kent Mfg. Co., Chicago, Ill.

COCKS (OR FAUCETS), BASIN AND WASTE COMBINED.

Chicago Faucet Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Goetz Brass Co., Chicago, Ill.
Hays Mfg. Co., Erie, Pa.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Hudson Brass Works, Brooklyn, N. Y.
Lehnert & Co., New York, N. Y.
Mott, J. L., Iron Works, Trenton, N. J.
Speakman Co., Wilmington, Del.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
York Fitting—Standard Sanitary Mfg. Co., Pittsburgh, Pa.

COCKS (OR FAUCETS), BASIN, SELF CLOSING, DOHERTY.

Brookside Brass Foundry & Mfg. Co., Cleveland, O.
Burlington Brass Works, Burlington, Wis.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Federal-Huber Co., Chicago, Ill.
Haydenville Co., Haydenville, Mass.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Meyer-Sniffen Co., The, New York, N. Y.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Mueller Co., Decatur, Ill.
Peck Bros. & Co., New Haven, Conn.
Royal Brass Mfg. Co., Cleveland, O.
Walworth Company, Boston, Mass.
Wolff Mfg. Corp., Chicago, Ill.

COCKS (OR FAUCETS), BASIN, SELF-CLOSING, TELEGRAPH.

Burlington Brass Works, Burlington, Wis.
Federal-Huber Co., Chicago, Ill.
Fleck Bros. Co., Philadelphia, Pa.
Haydenville Co., Haydenville, Mass.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
McShane Bell Foundry Co., Baltimore, Md.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Mueller Co., Decatur, Ill.
Peck Bros. & Co., New Haven, Conn.
Powhatan Brass & Iron Works, Ranson, W. Va.
Wolff Mfg. Corp., Chicago, Ill.

COCKS (OR FAUCETS), BATH, COMPRESSION.

American Brass Mfg. Co., Cleveland, O.
American—The Murdock Mfg. Supply Co., Cincinnati, O.
Atkinson Co., The, Rochester, N. Y.
Baltimore—Baltimore Valve Corp., Baltimore, Md.
Burlington Brass Works, Burlington, Wis.
Capitol Brass Works, Detroit, Mich.
Central Brass Mfg. Co., The, Cleveland, O. (Trade names—Central, Quickpression.)
Cochrane, J. A., Brass Mfg. Co., The, Cleveland, O.
Crane Co., Chicago, Ill.
Detroit Sanitary Supply Co., Detroit, Mich. (Trade names—Clean Sweep [Turban and Desanco patterns], Colonial.)
Dick Bros., Inc., Reading, Pa.
Elgin Brass Co., New York, N. Y.
Enterprise Brass Works, Muskegon, Mich.
Exeter Brass Works, Exeter, N. H.
Farnan Brass Works Co., The, Cleveland, O.
Fries & Co., Buffalo, N. Y.
Gibson Bros. Mfg. Co., North Chicago, Ill.
Globe Brass Mfg. Co., Cleveland, O.
Goetz Brass Co., Chicago, Ill.
Gopher—Union Brass & Metal Mfg. Co., St. Paul, Minn.
Hajoca Corporation, Philadelphia, Pa.
Hansen Brass Mfg. Co., Grand Rapids, Mich.
Haydenville Co., The,, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Loyal Brass Co., Cleveland, O.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
McShane Bell Foundry Co., Baltimore, Md.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Milwaukee Flush Valve Co., Milwaukee, Wis.
Oberndorf Mfg. Co., The, Pittsburgh, Pa.
Okay—E. Stebbins Mfg. Co., Springfield, Mass.
Pacific Faucet Mfg. Co., Los Angeles, Cal.
Peck Bros. & Co., New Haven, Conn.
Powhatan Brass & Iron Wks., Ranson, W. Va.
Prier Brass Mfg. Co., Kansas City, Mo.
Quaturn—Chicago Faucet Co., Chicago, Ill.
Rapidac—Mueller Co., Decatur, Ill.
Richter Brass Co., The, Cincinnati, O.
Rickersberg Brass Co., Cleveland, O. (Trade names —Rick, Quick.)
Roberts Brass Mfg. Co., Detroit, Mich.
Rochester—The Atkinson Co., Rochester, N. Y.
Royal Brass Mfg. Co., Cleveland, O.
Rundle Mfg. Co., Milwaukee, Wis.
Rundle-Spence Mfg. Co., Milwaukee, Wis.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Sanidome—Haydenville Co., The, Haydenville, Mass
Sanitas Mfg. Co., Boston, Mass.
Schwander Brass Mfg. Co., St. Louis, Mo.
Standard Brass Casting Co., Oakland, Cal.
Sterling Brass Co., The, Cleveland, O.
Sterling—Sterling Faucet Co., Newcomerstown, O.
Swan Neck—Thos. Savill's Sons, Philadelphia, Pa.
Telsa—Crane Co., Chicago, Ill.
Trojan Brass Mfg. Co., Cincinnati, O.
United Brass Mfg. Co., Cleveland, O.
Universal—Landers, Frary & Clark, New Britain, Conn.
Walworth Company, Boston, Mass.
Weiskittel, A., & Son Co., Baltimore, Md.
Wolff Mfg. Corp., Chicago, Ill.

COCKS (OR FAUCETS), BATH, FULLER.

Burlington Brass Works, Burlington, Wis.
Central Brass Mfg. Co., The, Cleveland, O.
Clean Sweep—Detroit Sanitary Supply Co., Detroit, Mich.
Corona—Wolff Mfg. Corp., Chicago, Ill.
Dick Bros., Inc., Reading, Pa.
Dougherty—Dearborn Brass Co., Cedar Rapids, Ia.
Edwardsville Brass Co., Edwardsville, Ill.
Empire Brass Mfg. Co., The, Cleveland, O.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Federal-Huber Co., Chicago, Ill.
Fries & Co., Buffalo, N. Y.
Gopher—Union Brass & Metal Mfg. Co., St. Paul, Minn.
Haydenville Co., The, Haydenville, Mass.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Loyal Brass Co., Cleveland, O.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Mott, J. L., Iron Works, The, Trenton, N. J.
Oberndorf Mfg. Co., Pittsburgh, Pa.
Peck's Improved—Peck Bros. & Co., New Haven, Conn.
Rapidac—Mueller Co., Decatur, Ill.
Rex—Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Richter Brass Co., The, Cincinnati, O.
Rundle Mfg. Co., Milwaukee, Wis.
Soderlund—E. Stebbins Mfg. Co., Springfield, Mass.
Sterling Brass Co., The, Cleveland, O.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Trenton Brass & Machine Co., The, Trenton, N. J.
Woodward-Wanger Co., Philadelphia, Pa.

COCKS (OR FAUCETS), BATH, QUICK OPENING, COMPRESSION.

Apex Brass Mfg. Co., Cleveland, O.
Atkinson Co., Rochester, N. Y.
Bashlin Co., Warren, Pa.
Buffalo—Fries & Co., Buffalo, N. Y.
Burlington Brass Works, Burlington, Wis.
Capitol Brass Works, Detroit, Mich.
Central Brass Mfg. Co., Cleveland, O.
Crane Co., Chicago, Ill.
Douglas Co., John, Cincinnati, O.
Elgin Brass Co., New York, N. Y.
Empire Brass Mfg. Co., Cleveland, O.
Enterprise Brass Works, Muskegon, Mich.
Federal-Huber Co., Chicago, Ill.
Gibson Bros. Mfg. Co., North Chicago, Ill.
Gopher—Union Brass & Metal Mfg. Co., St. Paul, Minn.
Kwik—J. A. Cochrane Brass Mfg. Co., Cleveland, O.

Morgan Brass Mfg. Co., Cleveland, O.
Mueller Co., Decatur, Ill.
Nelson Mfg. Co., N. O., St. Louis, Mo.
Okay—E. Stebbins Mfg. Co., Springfield, Mass.
Oberndorf Mfg. Co., Pittsburgh, Pa.
Peck Bros. & Co., New Haven, Conn.
Paragon—Paragon Brass Mfg. Co., Cleveland, O.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Quaturn—Chicago Faucet Co., Chicago, Ill
Quick-Ope—Haydenville Co., Haydenville, Mass.
Rickersberg Brass Co., Cleveland, O. (Trade names —Presto, Rick, Quick.)
Roberts Brass Mfg. Co., Detroit, Mich.
Royal Brass Mfg. Co., Cleveland, O.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Sterling Brass Co., Cleveland, O.
Sterling—Sterling Faucet Co., Newcomerstown, O.
United Brass Mfg. Co., Cleveland, O.
Walworth Company, Boston, Mass.
Wolff Mfg. Corp., Chicago, Ill.

COCKS, BLOW-OFF.

(See "Valves, Blow-off.")

COCKS (OR FAUCETS), BOTTLING.

American Foundry & Mfg. Co., St. Louis, Mo.
Fries & Co., Buffalo, N. Y.
Haydenville Co., The, Haydenville, Mass.
Krenz, Oscar, Copper & Brass Works, San Francisco, Cal.
Peck Bros. & Co., New Haven, Conn.
Perkes, Chas., Co., Philadelphia, Pa.
Universal—Landers, Frary & Clark, New Britain, Conn.
Wilton Mfg. Co., Wrightsville, Pa.

COCKS (OR STOPS), BRINE.

Buckeye Iron & Brass Works, Dayton, O.
C. C.—Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Hays Mfg. Co., Erie, Pa.
Healey, Peter, Brass Foundry Co., Evansville, Ind.
Perkes, Chas., Co., Philadelphia, Pa.
Universal—Landers, Frary & Clark, New Britain, Conn.
Walworth Company, Boston, Mass.

COCKS (OR FAUCETS), COMBINATION, DRINKING FOUNTAIN AND SINK OR LAVATORY.

Allen Filter Co., Toledo, O.
Century Brass Works, Belleville, Ill.
Chicago Faucet Co., Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Federal-Huber Co., Chicago, Ill.
Gopher—Union Brass & Metal Mfg. Co., St. Paul, Minn.
Lehnert & Co., New York, N. Y.
Mueller Co., Decatur, Ill.
Nelson Mfg. Co., N. O., St. Louis, Mo.
Okay—E. Stebbins Mfg. Co., Springfield, Mass.
Rundle-Spence Mfg. Co., Milwaukee, Wis.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Unit—Murray & Sorensen, New York, N. Y.
Williams, Franklin, Inc., Newark, N. J.
Wolff Mfg. Corp., Chicago, Ill.

COCKS (OR STOPS), CORPORATION AND WATERWORKS.

Acorn Pattern—Columbus Brass Co., Columbus, O.
American Foundry & Mfg. Co., St. Louis, Mo.
Barrett—Cleveland Brass Mfg. Co., Cleveland, O.
C. C.—Crane Co., Chicago, Ill.
Chapman Valve Mfg. Co., Indian Orchard, Mass.
Exeter Brass Works, Exeter, N. H.
Farnan—Farnan Brass Works Co., The, Cleveland, O.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Fisher Brass Co., The, Bellefontaine, O.
Fries & Co., Buffalo, N. Y.
Garratt & Co., W. T., San Francisco, Cal.
Gibson Bros. Mfg. Co., North Chicago, Ill.
Hamlin & Emery Brass Co., The, Boston, Mass.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Healey, Peter, Brass Foundry Co., Evansville, Ind.
K. & M.—Kinsey & Mahler Co., Peoria, Ill.
Kitson Co., The, Philadelphia, Pa
Krenz, Oscar, Brass & Copper Works, San Francisco, Cal.
Lunkenheimer Co., Cincinnati, O.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Mueller Co., Decatur, Ill.
Nichol & Co., Thos. J., Cincinnati, O.
Peck Bros. & Co., New Haven, Conn.
Perkes, Chas., Co., Philadelphia, Pa.
Perkins, H. K., Co., The, Taunton, Mass.
Pioneer Brass Works, Indianapolis, Ind.
Powhatan Brass & Iron Works, Ranson, W. Va.
Pratt & Cady—Reading Steel Casting Co., Bridgeport, Conn.
Republic Brass Co., Cleveland, O.
Richter Brass Co., The, Cincinnati, O.
Rockford Brass Works, Rockford, Ill.
Schwander—Schwander Brass Mfg. Co., St. Louis, Mo.
Smith, A. P., Mfg. Co., East Orange, N. J.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Sterling Brass Co., The, Cleveland, O.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
Union Water Meter Co., Worcester, Mass.
United—United Brass Mfg. Co., Cleveland, O.
Walworth Company, Boston, Mass.
Williams, Franklin, Inc., Newark, N. J.
Wolff Mfg. Corp., Chicago, Ill.

COCKS (OR STOPS), CURB.

Alabama Pipe Co., Anniston, Ala.
American Foundry & Mfg. Co., St. Louis, Mo.
Columbus Brass Co., The, Columbus, O.
Eastwood Wire Mfg. Co., Belleville, N. J.
Exeter Brass Works, Exeter, N. H.
Farnan Brass Works Co., The, Cleveland, O. (Trade names—Aurora, Farnan, Kansas City.)
Fisher Brass Co., The, Bellefontaine, O.
Flannery, P. J., Co., New Britain, Conn.
Fries & Co., Buffalo, N. Y.
Gibson Bros. Mfg. Co., North Chicago, Ill.
Gopher—Union Brass & Metal Mfg. Co., St. Paul, Minn.
Hamlin & Emery Brass Co., Boston, Mass.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
McShane Bell Foundry Co., Baltimore, Md.
Mueller Co., Decatur, Ill.
Nichol, Thos. J., & Co., Cincinnati, O.
Perkes, Chas., Co., Philadelphia, Pa.
Perkins Co., The, Taunton, Mass.
Pioneer Brass Works, Indianapolis, Ind.
Pratt & Cady — Reading Steel Casting Co., Inc., Bridgeport, Conn.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Rockford Brass Works, Rockford, Ill.
Schwander Brass Mfg. Co., St. Louis, Mo.
Smith, A. P., Mfg. Co., East Orange, N. J.
Union Water Meter Co., Worcester, Mass.
United Brass Mfg. Co., Cleveland, O .
Walworth Company, Boston, Mass.
Wolff Mfg. Corp., Chicago, Ill.

COCKS (OR STOPS), CURB, INVERTED KEY.

Barrett—The Cleveland Brass Mfg. Co., Cleveland, O.
Buffalo—Fries & Co., Buffalo, N. Y.
Chapman Valve Co., Indian Orchard, Mass.
Crane Co., Chicago, Ill.
Gopher—Union Brass & Metal Mfg. Co., St. Paul, Minn.
Kitson Co., Philadelphia, Pa.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Mueller Co., Decatur, Ill.
Perkes, Chas. Co., Philadelphia, Pa.
Republic Brass Co., Cleveland, O.
Rockford Brass Works, Rockford, Ill.
Rundle-Spence Mfg. Co., Milwaukee, Wis.
Schwander Brass Mfg. Co., St. Louis, Mo.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
United Brass Mfg. Co., Cleveland, O.

COCKS, CYLINDER.

American—American Lubricator Co., Detroit, Mich.
American Safety Lamp & Mine Supply Co., Scranton
Belknap Mfg. Co., The, Bridgeport, Conn.
Buckeye Iron & Brass Works, Dayton, Ohio.
C. C.—Crane Co., Chicago, Ill.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Detroit Brass & Malleable Works, Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, O. (Locomotive.)
Fries & Co., Buffalo, N. Y.
Garratt & Co., W. T., San Francisco, Cal.
General Brass Company, Detroit, Mich.
Hancock Inspirator Co., New York.
Haydenville Co., The, Haydenville, Mass.
Kitson Co., Philadelphia, Pa.
Lonergan Co., J. E., Philadelphia, Pa.
Nathan Mfg. Co., New York, N. Y.
Newark Brass Works, Newark, N. J.
Powell Co., The Wm., Cincinnati, O.
Powhatan Brass & Iron Wks., Ranson, W. Va.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Sterling & Skinner Mfg. Co., The, Detroit, Mich.
Swift—The Swift Lubricator Co., Elmira, N. Y.
Walworth Company, Boston, Mass.

COCKS, DIAL.

American Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Hays Mfg. Co., Erie, Pa.
McRae & Roberts Co., Detroit, Mich.
Powell, Wm. Co., Cincinnati, O.
Roberts Brass Mfg. Co., Detroit, Mich.

COCKS, DRAIN, AIR STORAGE TANK.

Brunner Manufacturing Co., Utica, N. Y.

Felthousen Ball Gauge Cock

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COCKS (OR STOPS), DRINKING FOUNTAIN.

American Foundry & Mfg. Co., St. Louis, Mo.
Brookside Brass Foundry & Mfg. Co., Cleveland, O.
Century Brass Works, Inc., Belleville, Ill.
Chi-Fau-Co.—Chicago Faucet Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Filglas—Mueller Co., Decatur, Ill.
Hajoca Corporation, Philadelphia, Pa.
Haydenville Co., The, Haydenville, Mass.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Lukomski Brothers Co., Detroit, Mich.
Mott, J. L., Iron Works, The, Trenton, N. J.
Mueller Co., Decatur, Ill.
Nelson, N. O., Mfg. Co., St. Louis, Mo.
Perry—Federal-Huber Co., Chicago, Ill.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Standard—Prier Brass Mfg. Co., Kansas City, Mo.
Street & Kent Mfg. Co., Chicago, Ill.
Watrous—Imperial Brass Mfg. Co., Chicago, Ill.

COCKS (AND VALVES), DRIP.

General Brass Company, Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Powell, Wm. Co., Cincinnati, O.
Walworth Company, Boston, Mass.
Williams, D. T., Valve Co., The, Cincinnati, O.

COCKS (OR FAUCETS), FACTORY WASH TROUGH.

American Sanitary Mfg. Co., Abingdon, Ill.
Edwardsville Brass Works, Edwardsville, Ill.
Goetz Brass Co., Chicago, Ill.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Peck Bros. & Co., New Haven, Conn.
Quaturn—Chicago Faucet Co., Chicago, Ill.
Speakman Co., Wilmington, Del.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.

COCKS, FILTER PRESS.

General Brass Company, Detroit, Mich.

COCKS (OR STOPS), FULLER.

Dearborn Brass Co., Cedar Rapids, Iowa.
Detroit Sanitary Supply Co., Detroit, Mich.
Federal-Huber Co., Chicago, Ill.
Hoffmann & Billings Co., Milwaukee, Wis.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Mueller Co., Decatur, Ill.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.

COCKS, GAGE.

Alexander Patent—Marion Machine, Fdy. & Sup. Co., Marion, Ind.
American—American Injector Co., Detroit, Mich.
American Safety Lamp & Mine Supply Co., Scranton, Pa.
American Lubricator Co., Detroit, Mich.
American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Ashcroft—Ashcroft Mfg. Co., New York, N. Y.
Ashton—The Ashton Valve Co., Cambridge, Mass.
Belfield, H., Co., Philadelphia, Pa.
Bingham—The Chaplin Fulton Mfg. Co., Pittsburgh, Pa.
Bonar—James Bonar & Co., Pittsburgh, Pa.
Bordo—L. J. Bordo Co., Philadelphia, Pa.
Buckeye Iron & Brass Works, Dayton, Ohio.
Burrows—F. A. Burrows Mfg. Co., York, Pa.
Capitol—Capitol Brass Works, Detroit, Mich.
Chicago—The Ohio Injector Co., Wadsworth, O.
Defender Automatic Regulator Co., St. Louis, Mo.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Detroit Brass & Malleable Works, Detroit, Mich.
Diamond—Cleveland Flue Cleaner Mfg. Co., Cleveland, O.
Diamond S—John Simmons Co., New York, N. Y.
Edna Brass Mfg. Co., The, Cincinnati, O. (Locomotive).
Excelsior—The Lunkenheimer Co., Cincinnati, O
Felthousen—Sherwood Mfg. Co., Buffalo, N. Y.
Fries & Co., Buffalo, N. Y.
Gaco—Pittsburgh Gage & Supply Co., Pittsburgh, Pa
Garratt & Co., W. T., San Francisco, Cal.
General Brass Company, Detroit, Mich.
Great Northern—Northern Tool Co., Inc., Utica, N. Y
Healey, Peter, Brass Foundry Co., Evansville, Ind.
Hills-McCanna Co., Chicago, Ill.
Hoyt—Rich Mfg. Co., Boston, Mass.
Hoyt—Star Brass Mfg. Co., Boston, Mass.
Humphryes Mfg. Co., The, Mansfield, O.
Imico—Illinois Malleable Iron Co., Chicago, Ill.
Indestructible—A. W. Cadman Mfg. Co., Pittsburgh, Pa.
Jenkins—Jenkins Bros., New York, N. Y.
Jenkins—Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Jerguson Navy—Jerguson Gage & Valve Co., Somerville, Mass.
Knapp Mfg. & Supply Co., New York, N. Y.
Lonergan—J. E. Lonergan Co., Philadelphia, Pa.
Madden's Patent—James B. Clow & Sons, Chicago.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Mattingly—Mattingly Automatic Valve Co., St. Louis, Mo.
M. V. B.—Morency-Van Buren Co., Sturgis, Mich.
Nason Mfg. Co., New York, N. Y. "Olympus."
Never-Leak—Nathan Mfg. Co., New York, N. Y.
Ohio—The Ohio Brass Co., Mansfield, O.
P. B. H.—Paul B. Huyette Co., Inc., The, Philadelphia, Pa.
Perfection—O'Malley-Beard Valve Co., Chicago, Ill.
Perkes, Chas., Co., Philadelphia, Pa.
Powell Co., Wm., Cincinnati, O.
Pratt & Cady—Reading Steel Casting Co., Bridgeport, Conn.
Reliance—Reliance Gauge Column Co., Cleveland, O.
Renewo—Lunkenheimer Co., Cincinnati, O.
Rich Mfg. Co., Boston, Mass.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Robertson Vertical Valve—John F. Robertson Co., Pittsburgh, Pa.
Sargent Company, Chicago, Ill.
Simmons Co., John, New York, N. Y
Standard—Prier Brass Mfg. Co., Kansas City, Mo.
Sterling & Skinner Mfg. Co., Detroit, Mich.
Straight Line—Illinois Malleable Iron Co., Chicago.
Stulp—Fred J. Stulp, Muskegon, Mich. (Automatic regrinding.)
Triumph—The Ohio Pump & Brass Co., Columbus, O
Swartwout (self-grinding)—The Swartwout Co., Cleveland, O.
United States Gauge Co., New York, N. Y. (pressure).
Vogt, Henry, Machine Co., Louisville, Ky. (forged steel, automatic).
Walworth Company, Boston, Mass.
Waterbury Mfg. Co., Waterbury, Conn.
Webbco—F. W. Webb Mfg. Co., Boston, Mass.
Williams, D. T., Valve Co., The, Cincinnati, O.
Williams—The Williams Gauge Co., Pittsburgh, Pa.
Wright-Austin Co., Detroit, Mich.

COCKS, GAGE, COMPRESSION.

American—American Injector Co., Detroit, Mich.
American Lubricator Co., Detroit, Mich.
Beaton & Cadwell Mfg. Co., The, New Britain, Conn.
Capitol—Capitol Brass Works, Detroit, Mich.
C. C.—Crane Co., Chicago, Ill.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Detroit Brass & Malleable Works, Detroit, Mich.
Felthousen—Sherwood Mfg. Co., Buffalo, N. Y.
Garratt & Co., W. T., San Francisco, Cal.
General Brass Company, Detroit, Mich.
Jenkins Bros., New York, N. Y.
Powell Co., The Wm., Cincinnati, O.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Sterling & Skinner Mfg. Co., The, Detroit, Mich.
Swift Lubricator Co., The, Elmira, N. Y.
Walworth Company, Boston, Mass.
Wright-Austin Co., Detroit, Mich.

COCKS, GAGE, LOCOMOTIVE.

Edna Brass Mfg. Co., The, Cincinnati, O.
Gaco—Pittsburgh Gage & Supply Co., Pittsburg, Pa
General Brass Company, Detroit, Mich.
Lonergan Co., J. E., Philadelphia, Pa.
Pittsburgh Gage & Supply Co., Pittsburgh, Pa.

COCKS, GAGE, "REGESTER."

Detroit Brass & Malleable Works, Detroit, Mich.
General Brass Company, Detroit, Mich.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Sterling & Skinner Mfg. Co., The, Detroit, Mich.

COCKS, GAGE, SELF-CLOSING.

Reliance Gauge Column Co., The, Cleveland, O
Rich Mfg. Co., Boston, Mass.

COCKS, GAGE, SIPHON.

United States Gauge Co., New York, N. Y.

COCKS (OR STOPS), GAS.

American Brass Mfg. Co., The, Cleveland, O.
American Foundry & Mfg. Co., St. Louis, Mo.
Barrett—Cleveland Brass Mfg. Co., Cleveland, O.
Bryant Heater & Mfg. Co., The, Cleveland, O.
C. C.—Crane Co., Chicago, Ill.
Cleveland Faucet Co., The, Cleveland, O.
Darling Valve & Mfg. Co., Williamsport, Pa.
Dependable—Detroit Brass & Malleable Works, Detroit, Mich.
Exeter Brass Works, Exeter, N. H.
Faries Mfg. Co., Decatur, Ill.
Farnan Brass Works Co., The, Cleveland, O.
Flannery, P. J., Co., New Britain, Conn.
Frank Bros., New York, N. Y.
Fries & Co., Buffalo, N. Y.
General Brass Company, Detroit, Mich.
Grinnell Co., Inc., Providence, R. I.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Healey, Peter, Brass Foundry Co., Evansville, Ind.
Imico—Illinois Malleable Iron Co., Chicago, Ill.
Johnson Gas Appliance Co., Cedar Rapids, Ia.
Kennedy Valve Mfg. Co., Elmira, N. Y.
Kitson Co., Philadelphia, Pa.
Loyal Brass Co., Cleveland, O.
Lukomski Brothers Co., Detroit, Mich.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Mueller Co., Decatur, Ill. (also iron body).
National Brass Mfg. Co., Rochester, N. Y.
Nichol, Thos. J., Co., The, Cincinnati, O.
Odin—Odin Stove Mfg. Co., Erie, Pa.
Pittsburgh Valve & Fittings Co., Barberton, O.
Powell Co., The Wm., Cincinnati, O.
Powhatan Brass & Iron Wks., Ranson, W. Va.
Richter Brass Co., The, Cincinnati, O.
Roberts Brass Mfg. Co., Detroit, Mich.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Sterling & Skinner Mfg. Co., The, Detroit, Mich.
Utica Valve and Fixture Co., Utica, N. Y.
Walworth Company, Boston, Mass.

COCKS (OR STOPS), GAS, HIGH PRESSURE.

Chapman Valve Mfg. Co., Indian Orchard, Mass.
General Brass Company, Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Healy, Peter, Brass Foundry Co., Evansville, Ind.
Homestead Valve Mfg. Co., Homestead, Pa.
Kitson Co., Philadelphia, Pa.
Lunkenheimer Co., Cincinnati, O.
Mueller Co., Decatur, Ill.
Walworth Company, Boston, Mass.

COCKS (OR STOPS), GAS HOSE.

Exeter Brass Works, Exeter, N. H.
General Brass Company, Detroit, Mich.
Grinnell Co., Inc., Providence, R. I.
Mueller Co., Decatur, Ill.
Roberts Brass Mfg. Co., Detroit, Mich.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg Co., Battle Creek, Mich.
Star Brass Mfg. Co., Boston, Mass.
Walworth Company, Boston, Mass.

COCKS (OR STOPS), GAS METER.

American Foundry & Mfg. Co., St. Louis, Mo.
Barrett—Cleveland Brass Mfg. Co., Cleveland, O.
Belfield, H., Co., Philadelphia, Pa.
Buckeye Iron & Brass Works, Dayton, O.
Buffalo—Fries & Co., Buffalo, N. Y.
C. C.—Crane Co., Chicago, Ill.
Crane Valve Co., Bridgeport, Conn.
Dependable—Detroit Brass & Malleable Works, Detroit, Mich.
Eclipse Fuel Engineering Co., Rockford, Ill.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Garratt, W. T., & Co., San Francisco, Cal.
General Brass Company, Detroit, Mich.
Gibson Bros. Mfg. Co., North Chicago, Ill.
Gopher—Union Brass & Metal Mfg. Co., St. Paul, Minn.
Hamlin & Emery Brass Co., The, Boston, Mass.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Healey, Peter, Brass Foundry Co., Evansville, Ind.
Kitson Co. Philadelphia, Pa.
K. & M.—Kinsey & Mahler Co., Peoria, Ill.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Mueller Co., Decatur, Ill
Nichol, Thos. J., & Co., Cincinnati, O.
Perkes, Chas., Co., Philadelphia, Pa.
Powell, Wm. Co., Cincinnati, O.
Powhatan Brass & Iron Wks., Ranson, W. Va.
Richter Brass Co., Cincinnati, O.
Rockford Brass Works, Rockford, Ill.
Walworth Company, Boston, Mass.

COCKS (AND VALVES), GAS, NATURAL.

Buckeye Iron & Brass Works, Dayton, O.
Columbus Brass Co., Columbus, O.
Detroit Brass & Malleable Works, Detroit, Mich.
Farnan Brass Works Co., The, Cleveland, O.
Fries & Co., Buffalo, N. Y.
General Brass Company, Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Healy, Peter, Brass Foundry Co., Evansville, Ind.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
The Ludlow Valve Mfg. Co., Troy, N. Y.
Mueller Co., Decatur, Ill.
Ohio Brass Co., The, Mansfield, O.
Pittsburgh Valve Foundry & Construction Co., Pittsburgh, Pa.
Powell, Wm. Co., Cincinnati, O.
Pratt & Cady—Reading Steel Casting Co., Inc., Bridgeport, Conn.

COCKS (OR STOPS), GAS SERVICE.

American Foundry & Mfg. Co., St. Louis, Mo.
American Lubricator Co., Detroit, Mich.
Barrett—Cleveland Brass Mfg. Co., Cleveland, O.
Buckeye Iron & Brass Works, Dayton, O.
Capitol Brass Works, Detroit, Mich.
C. C.—Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, O.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Exeter Brass Works, Exeter, N. H.
Farnan Brass Works Co., The, Cleveland, O.
Fries & Co., Buffalo, N. Y.
General Brass Company, Detroit, Mich.
Gibson Bros. Mfg. Co., North Chicago, Ill.
Hamlin & Emery Brass Co., The, Boston, Mass.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Kitson Co., Philadelphia, Pa.
Krenz, Oscar, Copper & Brass Works, Inc., The, San Francisco, Cal.
Lord—The C. H. Yonts Co., Meadville, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Mueller Co., Decatur, Ill.
Okay—E. Stebbins Mfg. Co., Springfield, Mass.
Peck Bros. & Co., New Haven, Conn.
Perkes, Chas., Co., Philadelphia, Pa.
Powell, Wm. Co., Cincinnati, O.
Powhatan Brass & Iron Works, Ranson, W. Va.
Richter Brass Co., Cincinnati, O.
Roberts Brass Mfg. Co., Detroit, Mich.
Rockford Brass Works, Rockford, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Stacey Mfg. Co., The, Cincinnati, O.
Sterling—Sterling Faucet Co., Newcomerstown, O.
Superior Mfg. Co., The, Pittsburgh, Pa.
United Brass Mfg. Co., Cleveland, O.
Vulcan—Wm. M. Crane Co., New York, N. Y.
Walworth Company, Boston, Mass.

COCKS, GASOLINE.

Clelock—The Cleveland Brass Mfg. Co., Cleveland, O
Commonwealth Brass Corp., Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
General Brass Company, Detroit, Mich.
Hancock Mfg. Co., Charlotte, Mich.
Hays Mfg. Co., Erie, Pa.
Imperial Brass Mfg. Co., Chicago, Ill.
Lunkenheimer Co., Cincinnati, O.
Kant Leak—Michigan Lubricator Co., Detroit, Mich.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
National—National Brass Mfg. Co., Rochester, N. Y.
Perkes, Chas., Co., Philadelphia, Pa.
Powell Co., The Wm., Cincinnati, O.
Quadlock—Lunkenheimer Co., Cincinnati, O.
Roberts Brass Mfg. Co., Detroit, Mich.
Sterling & Skinner Mfg. Co., Detroit, Mich.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
W. & B.—Wilson & Bennett Mfg. Co., Chicago, Ill.
Walworth Company, Boston, Mass.

COCKS (OR STOPS), "H" PATTERN.

Exeter Brass Works, Exeter, N. H.
Hays Mfg. Co., Erie, Pa.
Healey, Peter, Brass Foundry Co., Evansville, Ind.
Kitson Co., Philadelphia, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Mueller Co., Decatur, Ill.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Union Water Meter Co., Worcester, Mass.
Walworth Company, Boston, Mass.

COCKS, HOSE.

Chi-Fau Co Garage Cock—Chicago Faucet Co., Chicago, Ill.
Dallett—Dallet Co., Philadelphia.
Detroit Brass & Malleable Works, Detroit, Mich.
Flannery, P. J., Co., New Britain, Conn.
General Brass Company, Detroit, Mich.

Hajoca Corporation, Philadelphia, Pa.
Haydenville Co., The, Haydenville, Mass.
Mueller Company, Decatur, Ill. (Automatic.)
Perkes, Chas., Co., Philadelphia, Pa.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Richter—The Richter Brass Co., Cincinnati, O.
Roberts Brass Mfg. Co., Detroit, Mich.
Schulte Brass Mfg. Co., Norwood, Cincinnati, O.
Standard Brass & Iron Works, Milwaukee, Wis.
Standard Brass Casting Co., Oakland, Calif.
Stebbins, E., Mfg. Co., Springfield, Mass.
Trojan Brass Mfg. Co., The, Cincinnati, O.
Universal—Landers, Frary & Clark, New Britain, Conn.

COCKS, HYDRANT.

American Foundry & Mfg. Co., St. Louis, Mo.
American Railway Hydrant & Valve Co., Stapleton, S. I., N. Y.
Barrett—The Cleveland Brass Mfg. Co., Cleveland, Ohio.
C. C.—Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Exeter Brass Works, Exeter, N. H.
Farnan Brass Works Co., The, Cleveland, O.
Flannery, P. J., Co., New Britain, Conn.
Fries & Co., Buffalo, N. Y.
Gibson Bros. Mfg. Co., North Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg Co., Erie, Pa.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Kitson Co., Philadelphia, Pa.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Mueller Co., Decatur, Ill.
Nichol, Thos. J., Co., The, Cincinnati, O.
P. B.—The Peck Bros. & Co., New Haven, Conn.
Perkes, Chas., Co., Philadelphia, Pa.
Powhatan Brass & Iron Works, Ranson, W. Va.
Rockford Brass Works, Rockford, Ill.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Union Water Meter Co., Worcester, Mass.
Walworth Company, Boston, Mass.
Wolff Mfg. Corp., Chicago, Ill.

COCKS, HYDRAULIC.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Bordo—L. J. Bordo Co., Philadelphia, Pa.
Hays Mfg. Co., Erie, Pa.
Lonergan—J. E. Lonergan Co., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.

COCKS, INDICATOR.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Cooper—American Lubricator Co., Detroit, Mich.
Essex—Essex Brass Corp., Detroit, Mich.
General Brass Company, Detroit, Mich.
Hays Mfg. Co., Erie, Pa.
Jost's Sons, Edmund, Newark, N. J.
Lonergan—J. E. Lonergan Co., Philadelphia, Pa.
Lunkenheimer Co., Cincinnati, O.
Milwaukee Valve Co., Milwaukee, Wis.
Mueller Co., Decatur, Ill.
Powell Co., The Wm., Cincinnati, O.
Roberts Brass Mfg. Co., Detroit, Mich.
Sherwood Three-Way—Sherwood Mfg. Co., Buffalo, N. Y.
Strait—American Lubricator Co., Detroit, Mich.

COCKS, IRON.

American Foundry & Mfg. Co., St. Louis, Mo.
Belfield, H., Co., Philadelphia, Pa.
Buckeye Iron & Brass Mfg. Co., Dayton, O.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Imico—Illinois Malleable Iron Co., Chicago, Ill.
Judson Governor Co., The, Rochester, N. Y.
Peco—Pittsburgh Engineering Co., Jeannette, Pa.
Pittsburg Valve & Fittings Co., Barberton, O.
Powell, Wm., Co., Cincinnati, O.
Universal—Landers, Frary & Clark, New Britain, Conn.
Walworth Company, Boston, Mass.

COCKS (OR FAUCETS), LAUNDRY TRAY.

Acme Brass Works, Detroit, Mich.
Allen, W. D., Mfg. Co., Chicago, Ill.
American Sanitary Mfg. Co., Abingdon, Ill.
Burman Specialty Co., Minneapolis, Minn.
Capitol Brass Works, Detroit, Mich.
Crane Co., Chicago, Ill.
Empire Brass Mfg. Co., The, Cleveland, O.
Elgin Brass Co., New York, N. Y.
Enterprise Brass Works, Muskegon, Mich.
Flannery, P. J., Co., New Britain, Conn.
Gibson Bros. Mfg. Co., North Chicago, Ill.
Hajoca Corporation, Philadelphia, Pa.
Hansen Brass Mfg. Co., Grand Rapids, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Loyal Brass Co., Cleveland, Ohio.
Mueller Co., Decatur, Ill.
Oberndorf Mfg. Co., The, Pittsburgh, Pa.
Okay—E. Stebbins Mfg. Co., Springfield, Mass.
Paragon—Paragon Brass Mfg. Co., Cleveland, O.
Peru Brass & Mfg. Co., Peru, Ind.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Rick—Rickersberg Brass Co., Cleveland, Ohio.
Royal Brass Mfg. Co., Cleveland, O.
Sterling Brass Co., The, Cleveland, O.
Swan Neck—Thomas Savill's Sons, Philadelphia, Pa.
Union Brass & Metal Mfg. Co., St. Paul, Minn. (Trade names—E. Z., Ideal.)
United Brass Mfg. Co., Cleveland, O.
Walworth Company, Boston, Mass.
Wolff Mfg. Corp., Chicago, Ill.

COCKS (OR FAUCETS), LAUNDRY TRAY, MIXING.

Acme-Detroit—Acme Brass Works, Detroit, Mich.
Burman Unit—Burman Specialty Co., Minneapolis, Minn.
Capitol Brass Works, Detroit, Mich.
Chicago Faucet Co., Chicago, Ill.
Gibson Bros. Mfg. Co., North Chicago, Ill.
Rainbow—Street & Kent Mfg. Co., Chicago, Ill.
Republic Brass Co., Cleveland, O.
Roberts Brass Mfg. Co., Detroit, Mich.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Sterling—Sterling Faucet Co., Newcomerstown, O.
Union Brass & Metal Mfg. Co., St. Paul, Minn. (Trade names—E. Z., Ideal.)

COCKS, STOPS OR VALVES, LAVATORY.

Acme Brass Works, Detroit, Mich.
American Foundry & Mfg. Co., St. Louis, Mo.
Baltimore—Baltimore Valve Corp., Baltimore, Md.
Burlington Brass Works, Burlington, Wis.
Century Brass Works, Inc., Belleville, Ill.
Cochrane, J. A., Brass Mfg. Co., Cleveland, O.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit Sanitary Supply Co., Detroit, Mich.
Elgin Brass Co., New York, N. Y.
Eljer Co., Ford City, Pa.
Exeter Brass Works, Exeter, N. H.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Gibson Bros. Mfg. Co., North Chicago, Ill.
Gopher—Union Brass & Metal Mfg. Co., St. Paul, Minn.
Hajoca Corporation, Philadelphia, Pa.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Loyal Brass Co., Cleveland, O.
Lukomski Brothers Co., Detroit, Mich.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
McShane Bell Foundry Co., Baltimore, Md.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Milwaukee Valve Co., Milwaukee, Wis.
Mueller Co., Decatur, Ill.
Okay—E. Stebbins Mfg. Co., Springfield, Mass.
Oberndorf Mfg. Co., The, Pittsburgh, Pa.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Richter Brass Co., The, Cincinnati, O.
Schwander Brass Mfg. Co., St. Louis, Mo.
Sterling—Sterling Faucet Co., Newcomerstown, O.
Street & Kent Mfg. Co., Chicago, Ill.
Swan Neck—Thomas Savill's Sons, Philadelphia, Pa.
Wise, J. B., Watertown, N. Y.

COCKS (OR FAUCETS), LAVATORY, PEDAL ACTION.

Bashlin Co., Warren, Pa.
Clow, Jas. B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Edwardsville Brass Co., Edwardsville, Ill.
Elsmere—Speakman Co., Wilmington, Del.
Em-Ess—The Meyer-Sniffen Co., New York, N. Y.
Federal-Huber Co., Chicago, Ill.
Hajoca Corporation, Philadelphia, Pa.
Milwaukee Flush Valve Co., Milwaukee, Wis.
Peck Bros. & Co., New Haven, Conn.
Rundle-Spence Mfg. Co., Milwaukee, Wis.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Wolff Mfg. Corp., Chicago, Ill.

COCKS (OR STOPS), LOCK, FOR GAS, OIL, ETC.

American Foundry & Mfg. Co., St. Louis, Mo.
Detroit Brass & Malleable Works, Detroit, Mich.
Essex—Pittsburgh Valve & Fittings Co., Barberton, O.
Flannery, P. J., Co., New Britain, Conn.
General Brass Company, Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Homestead—Homestead Valve Mfg. Co., Homestead, Pa.
Kitson Co., Philadelphia, Pa.
Lock Fast—Wilson & Bennett Mfg. Co., Chicago, Ill.
Mueller Co., Decatur, Ill.
National—National Brass Mfg. Co., Rochester, N. Y.
Peck Bros. & Co., The, New Haven, Conn.
Perkes, Chas., Co., Philadelphia, Pa.
Powell Co., Wm., The, Cincinnati, O.
Powhatan Brass & Iron Works, Ranson, W. Va.
Stebbins, E., Mfg. Co., Springfield, Mass.
United Brass Mfg. Co., Cleveland, O.
Universal—Landers, Frary & Clark, New Britain, Conn.

Walworth Company, Boston, Mass.
W. & B.—Wilson & Bennett Mfg. Co., Chicago, Ill.
Wilton—Wilton Mfg. Co., Wrightsville, Pa.
Wolff Mfg. Corp., Chicago, Ill.

COCKS, LOCK AND SHIELD.

Central Brass Mfg. Co., The, Cleveland, O.
Exeter Brass Works, Exeter, N. H.
Gibson Bros. Mfg. Co., North Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
North Star Foundry Co., Minneapolis, Minn.
Powell, Wm. Co., Cincinnati, O.
Richter Brass Co., Cincinnati, O.
Sterling Brass Co., The, Cleveland, O.

COCKS AND VALVES, MIXING.

(For Mixing Hot and Cold Water or Water and Steam.)

Bloom Flusher Co., Tiffin, O.
Boston—Haydenville Co., Haydenville, Mass.
Boston—Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Brookside Brass Foundry & Mfg. Co., The, Cleveland, O.
Columbia—Hoelscher Bros., Chicago, Ill.
Crane Co., Chicago, Ill.
Economy Faucet Co., Providence, R. I.
Edwardsville Brass Works, Edwardsville, Ill.
Elm, Webco—F. W. Webb Mfg. Co., Boston, Mass.
Em-Ess—The Meyer-Sniffen Co., New York, N. Y.
Essex Brass Corp., Detroit, Mich.
Extra Pattern—Wolff Mfg. Corp., Chicago, Ill.
Farnan—Farnan Brass Works Co., The, Cleveland, O.
Fulton Sylphon Co., Knoxville, Tenn.
Hajoca Corporation, Philadelphia, Pa.
Haydenville Co., The, Haydenville, Mass.
Kold or Hot—Superior Brass Novelty Co., New York, N. Y.
Ingham—The Imperial Brass Mfg. Co., Chicago, Ill.
Leonard-Rooke Co., Providence, R. I.
Marvel Mach. & Brass Works, Cleveland, Ohio.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Milwaukee Flush Valve Co., Milwaukee, Wis.
Mixometer—Speakman Co., Wilmington, Del.
Mott, J. L., Iron Works, Trenton, N. J. (Trade names—Leonard, Leonard Jr., Securo, Simplo, Thermo.)
Niedecken—Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Oberndorf Mfg. Co., Pittsburgh, Pa.
Peck Bros. & Co., New Haven, Conn.
Pilot—Hedges & Bro., Newark, N. J.
Powers Regulator Co., The, Chicago, Ill.
Price-Pfister Brass Mfg. Co., Los Angeles, Ca.
R-N-B.—R-N-B. Mfg. Co., Chicago, Ill.
Royal Brass Mfg. Co., The, Cleveland, O.
Sanitas Mfg. Co., Boston, Mass.
Single Faucet & Flush Valve Co., Chicago, Ill.
Soderlund—E. Stebbins Mfg. Co., Springfield, Mass.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Street & Kent Mfg. Co., Chicago, Ill.
Trinity—Goetz Brass Co., Chicago, Ill.
2 in 1—The Morgan Bronze Co., Cleveland, O.
Walworth Company, Boston, Mass.

COCKS, OIL.

American Foundry & Mfg. Co., St. Louis, Mo.
Flannery, P. J., Co., New Britain, Conn.
General Brass Company, Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Lunkenheimer Co., The, Cincinnati, O.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
National Brass Mfg. Co., Rochester, N. Y.
Peck Bros & Co., The, New Haven, Conn.
Perkes, Chas., Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, O.
Rauch Mfg. Co., Galena, Kan.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
Universal—Landers, Frary & Clark, New Britain, Conn.
Walworth Company, Boston, Mass.
Wilton Mfg. Co., Wrightsville, Pa. (lock).

COCKS, OIL FILTER.

Powell—The Wm. Powell Co., Cincinnati, O.

COCKS OR FAUCETS, OIL WAGON AND STORAGE TANK.

Clelock—The Cleveland Brass Mfg. Co., Cleveland, Ohio.
Exeter Brass Works, Exeter, N. H.
Flannery, P. J., Co., New Britain, Conn.
Haydenville Co., The, Haydenville, Mass.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Morrison Bros., Dubuque, Ia.
National—National Brass Mfg. Co., Rochester, N. Y
Perfection—The Rauch Mfg. Co., Galena, Kan.
Pioneer Alloy Products Co., Cleveland, O.
Powell, Wm., The, Cincinnati, O.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
W. & B.—Wilson & Bennett Mfg. Co., Chicago, Ill.
Wheaton Brass Works, A. W., Newark, N. J.
Wilton—Wilton Mfg. Co., Wrightsville, Pa.

COCKS (OR FAUCETS), PANTRY, COMPRESSION.

Atkinson Co., Rochester, N. Y.
Burlington Brass Works, Burlington, Wis.
Clean Sweep—Detroit Sanitary Supply Co., Detroit, Mich.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Exeter Brass Works, Exeter, N. H.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Globe Brass Mfg. Co., The, Cleveland, O.
Gopher—Union Brass & Metal Mfg. Co., St. Paul, Minn.
Hajoca Corporation, Philadelphia, Pa.
Haydenville Co., The, Haydenville, Mass.
Hoffmann & Billings Co., Milwaukee, Wis.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
McShane Bell Foundry Co., Baltimore, Md.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Mueller Co., Decatur, Ill.
Okay—E. Stebbins Mfg. Co., Springfield, Mass.
Peck Bros. & Co., The, New Haven, Conn.
Perkes, Chas., Co., Philadelphia, Pa.
Powhatan Brass & Iron Works, Ranson, W. Va.
Quaturn—Chicago Faucet Co., The, Chicago, Ill.
Quickpression—The Central Brass Mfg. Co., Cleveland, O.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Speakman Co., Wilmington, Del.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Wolff Mfg. Corp., Chicago, Ill.

COCKS (OR FAUCETS), PANTRY, FULLER.

Burlington Brass Works, Burlington, Wis.
Central Brass Mfg. Co., The, Cleveland, O.
Clean Sweep—Detroit Sanitary Supply Co., Detroit, Mich.
Crampton-Farley Brass Co., Kansas City, Mo.
Dearborn Brass Co., Cedar Rapids, Ia.
Em-Ess—The Meyer-Sniffen Co., New York, N. Y.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Federal-Huber Co., Chicago, Ill.
Gopher—Union Brass & Metal Mfg. Co., St. Paul, Minn.
Haydenville Co., The, Haydenville, Mass.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Mueller Co., Decatur, Ill.
Peck Bros. & Co., New Haven, Conn.
Rundle Mfg. Co., Milwaukee, Wis.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
United Brass Mfg. Co., Cleveland, O.
Wolff Mfg. Corp., Chicago, Ill.

COCKS (OR FAUCETS), PANTRY, SELF-CLOSING.

Atkinson Co., Rochester, N. Y.
Bashlin Co., Warren, Pa.
Brookside Brass Foundry & Mfg. Co., The, Cleveland, O.
Burlington Brass Works, Burlington, Wis.
Chicago Faucet Co., Chicago, Ill. (Trade names—Chi-Fau-Co., Quaturn.)
Clow, James B., & Sons, Chicago, Ill.
Douglas, John, Co., Cincinnati, O.
Em-Ess—The Meyer-Sniffen Co., New York, N. Y.
Faultless—Ryan & Co., J. J., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass. (Trade names—Boston, Doherty, Telegraph.)
Hoffmann & Billings Mfg. Co., Milwaukee. (Trade names—Milwaukee, Pierce.)
Marvel Mach. & Brass Works, Cleveland, Ohio.
Milwaukee Brass Mfg. Co., Milwaukee, Wis. (Trade names—Boston, Doherty.)
Mueller Co., Decatur, Ill.
Murray & Sorensen, New York, N. Y.
Peck Bros & Co., The, New Haven, Conn. (Trade names—Doherty, Moores.)
Perkes, Chas., Co., Philadelphia, Pa.
Perry—Federal-Huber Co., Chicago, Ill.
Richter Brass Co., Cincinnati, O.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Standard—Prier Brass Mfg. Co., Kansas City, Mo.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Wolff Mfg. Corp., Chicago, Ill. (Trade names—Doherty, Gialow.)

COCKS, PET.

Detroit—Detroit Lubricator Co., Detroit, Mich.
Detroit Brass & Malleable Works, Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Frank Bros., New York, N. Y.
Fries & Co., Buffalo, N. Y.
General Brass Company, Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Lunkenheimer Co., Cincinnati, O.
Monash-Younker Co., Chicago.
Perkes, Chas., Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, O.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Sterling & Skinner Mfg. Co., The, Detroit, Mich.
Walworth Company, Boston, Mass.

COCKS, PLUG.

Duriron (Acid Proof)—The Duriron Co., Inc., Dayton, O.
Exeter Brass Works, Exeter, N. H.
General Brass Company, Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Judson Governor Co., Rochester, N. Y.
Lunkenheimer Co., Cincinnati, O.
McGowan—John H. McGowan Co., The, Cincinnati, O.
Perfection—Eastwood Wire Mfg. Co., Belleville, N. J.
Perkes, Chas., Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, O.
Stebbins, E., Mfg. Co., Springfield, Mass. "Okay."
Walworth Company, Boston, Mass.

COCKS (OR FAUCETS), RANGE BOILER.

Acme Brass Works, Detroit, Mich.
Allen, W. D., Mfg. Co., Chicago, Ill.
American Sanitary Mfg. Co., Abingdon, Ill.
Beaton & Cadwell Mfg. Co., New Britain, Conn.
Belknap Mfg. Co., The, Bridgeport, Conn.
Britton—Peter A. Frasse & Co., Inc., New York, N. Y.
Capitol Brass Works, Detroit, Mich.
Cochrane, J. A., Brass Mfg. Co., Cleveland, O.
Commonwealth Brass Corp., Detroit, Mich.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Detroit Sanitary Supply Co., Detroit, Mich.
Dole Valve Co., The, Chicago, Ill.
Elgin Brass Co., New York, N. Y.
Exeter Brass Works, Exeter, N. H.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Flannery, P. J., Co., New Britain, Conn.
General Brass Company, Detroit, Mich.
Gibson Bros. Mfg. Co., North Chicago, Ill.
Globe Brass Mfg. Co., Cleveland, Ohio.
Hajoca Corporation, Philadelphia, Pa.
Hampden Brass Products Co., Springfield, Mass.
Hansen Brass Mfg. Co., Grand Rapids, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Kitson Co., Philadelphia, Pa.
Lukomski Brothers Co., Detroit, Mich.
Lunkenheimer Co., Cincinnati, O.
Nichol, Thos. J., Co., The, Cincinnati, O.
Oberndorf Mfg. Co., Pittsburgh, Pa.
Okay—E. Stebbins Mfg. Co., Springfield, Mass.
Powhatan Brass & Iron Works, Ranson, W. Va.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Royal Brass Mfg Co., Cleveland, O.
Sherman, H. B., Mfg Co., Battle Creek, Mich.
Standard Brass Casting Co., Oakland, Calif.
Sterling Faucet Co., Newcomerstown, O.
Sterling & Skinner Mfg. Co., Detroit, Mich.
Street & Kent Mfg. Co., Chicago, Ill.
Trojan Brass Mfg. Co., The, Cincinnati, O.
Utica Valve & Fixture Co., Utica, N. Y.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
United Brass Mfg. Co., Cleveland, O.
Walworth Company, Boston, Mass.

COCKS, REFILL.

Powell Co., The Wm., Cincinnati, O.

COCKS, RELIEF.

American—American Lubricator Co., Detroit, Mich.
General Brass Company, Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Powell Co., The Wm., Cincinnati, O. (gas engine).
W.-McD.—Watson & McDaniel Co., Philadelphia, Pa.

COCKS, SELF-CLOSING, BALL AND ROLLER BEARING.

Century Brass Works, Inc., Belleville, Ill.
Haydenville Co., Haydenville, Mass.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Mueller Co., Decatur, Ill.
Ryco—J. J. Ryan & Co., Chicago, Ill.

COCKS (OR FAUCETS), SELF-CLOSING, PUSH BUTTON.

Century Brass Works, Inc., Belleville, Ill.
Chicago Faucet Co., Chicago, Ill.
Douglas, John, Co., Cincinnati, O.
Federal-Huber Co., Chicago, Ill.
McShane Bell Foundry Co., Baltimore, Md.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Peck Bros. & Co., New Haven, Conn.
Speakman Co., Wilmington, Del.
Watrous—Imperial Brass Mfg. Co., Chicago, Ill.

COCKS (OR FAUCETS), SELF-CLOSING, SIDE LEVER HANDLE.

Brookside Brass Foundry & Mfg. Co., Cleveland, O.
Chicago Faucet Co., Chicago, Ill.
Clow, Jas. B., & Sons, Chicago, Ill.
Columbia—Speakman Co., Wilmington, Del.
Crane Co., Chicago, Ill.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Leviathan—Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Marvel Mach. & Brass Works, Cleveland, Ohio.
McShane Bell Foundry Co., Baltimore, Md.
Mott, J. L., Iron Works, Trenton, N. J.
Rundle-Spence Mfg. Co., Milwaukee, Wis.
Wolff Mfg. Corp., Chicago, Ill.

COCKS (OR FAUCETS), SHAMPOO.

Central Brass Mfg. Co., Cleveland, O.
Clow & Sons, James B., Chicago, Ill.
Columbia—Speakman Co., Wilmington, Del.
Crane Co., Chicago, Ill.
Edwardsville Brass Co., Edwardsville, Ill.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Federal-Huber Co., Chicago, Ill.
Garrison-Heiland Corp., New York, N. Y.
Globe Brass Mfg. Co., Cleveland, O.
Hajoca Corporation, Philadelphia, Pa.
Haydenville Co., Haydenville, Mass.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Hudson Brass Works, Brooklyn, N. Y.
Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Lehnert & Co., New York, N. Y.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Mott, J. L., Iron Works, Trenton, N. J.
Mueller Co., Decatur, Ill.
Murray & Sorensen, New York City.
Paragon—Paragon Brass Mfg. Co., Cleveland, O.
Peck Bros. & Co., New Haven, Conn.
Quaturn—Chicago Faucet Co., Chicago, Ill.
Republic Brass Co., Cleveland, O.
Rundle Mfg. Co., Milwaukee, Wis.
Rundle-Spence Mfg. Co., Milwaukee, Wis.
Street & Kent Mfg. Co., Chicago, Ill. (Trade names—Rainbow, S. & K.)
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Sterling Brass Co., Cleveland, O.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
Victor Brass Mfg. Co., Cleveland, O.
Wolff Mfg. Corp., Chicago, Ill.

COCKS, STOPS (OR VALVES), SHOWER BATH.

Brookside Brass Foundry & Mfg. Co., Cleveland, O. (Trade names—Ball-Bearing, Crown, Star.)
Century Brass Works, Inc., Belleville, Ill.
Columbia—Speakman Co., Wilmington, Del.
Goetz Brass Co., Chicago, Ill.
Hajoca Corporation, Philadelphia, Pa.
Haydenville Co., The, Haydenville, Mass.
Hoelscher Bros., Chicago, Ill.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Morgan Bronze Co., The, Cleveland, O. "2 in 1."
Oberndorf Mfg. Co., Pittsburgh, Pa.
Paragon—Paragon Brass Mfg. Co., Cleveland, O.
Peck Bros. & Co., New Haven, Conn.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Quaturn—Chicago Faucet Co., Chicago, Ill.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Sterling—Sterling Faucet Co., Newcomerstown, O.
Victor Brass Mfg. Co., Cleveland, O.
Wolff Mfg. Corp., Chicago, Ill.

COCKS (OR FAUCETS), SILL, COMPRESSION.

Acme—Acme Brass Works, Detroit, Mich.
Allen, W. D., Mfg. Co., Chicago, Ill.
American Brass Mfg. Co., The, Cleveland, O.
American Foundry & Mfg. Co., St. Louis, Mo.
Baltimore Valve Corp., Baltimore, Md.
Boston—Street & Kent Mfg. Co., Chicago, Ill.
Capitol Brass Works, Detroit, Mich.
Century Brass Works, Inc., Belleville, Ill.
Crane Co., Chicago, Ill.
Dearborn Brass Co., Cedar Rapids, Ia.
Elgin Brass Co., New York, N. Y.
Empire Brass Mfg. Co., Cleveland, O.
Exeter Brass Works, Exeter, N. H.
Farnan Brass Works Co., The, Cleveland, O.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Fries & Co., Buffalo, N. Y.
Garratt & Co., W. T., San Francisco, Cal.
General Brass Company, Detroit, Mich.
Gibson Bros. Mfg. Co., North Chicago ,Ill.
Goetz Brass Co., Chicago, Ill.
Hansen Brass Mfg. Co., Grand Rapids, Mich.
Hajoca Corporation, Philadelphia, Pa.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis
Kinsey & Mahler Co., Peoria, Ill.
Loyal Brass Co., Cleveland, O.
Lukomski Brothers Co., Detroit, Mich.
McDonald Mfg Co., A. Y., Dubuque, Ia
Miami—The Middletown Mfg. Co., Middletown, O (anti-freeze).
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Milwaukee—Street & Kent Mfg. Co., Chicago, Ill.
Mueller Co., Decatur, Ill.
Okay—E. Stebbins Mfg. Co., Springfield, Mass.
Perkes, Chas., Co., Philadelphia, Pa.
Peru Brass & Mfg. Co., Peru, Ind.

Powhatan Brass & Iron Works, Ranson, W. Va.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Prier Brass Mfg. Co., Kansas City, Mo.
Richter—The Richter Brass Co., Cincinnati, O.
Rick—The Rickersberg Brass Co., Cleveland, O.
Roberts Brass Mfg. Co., Detroit, Mich.
Royal Quality—The Royal Brass Mfg. Co., Cleveland, O.
Rundle Mfg. Co., Milwaukee, Wis.
Schlangen Bros. Co., Chicago, Ill.
Schwander—Schwander Brass Mfg. Co., St. Louis, Mo.
Sherman Mfg. Co., H. B., Battle Creek, Mich.
Standard Brass Casting Co., Oakland, Calif.
Sterling Brass Co., The, Cleveland, O.
Street & Kent Mfg. Co., Chicago, Ill.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
United—United Brass Mfg. Co., Cleveland, O.
Universal—Landers, Frary & Clark, New Britain, Conn.
Walworth Company, Boston, Mass.
Western Mfg. Co., Oskaloosa, Iowa (frost proof).
Wolff Mfg. Corp., Chicago, Ill.

COCKS (OR FAUCETS), SINK, MIXING.

Baltimore—Baltimore Valve Corp., Baltimore, Md.
Capitol Brass Works, Detroit, Mich.
Chicago Faucet Co., The, Chicago, Ill. (Trade names —Quaturn, Soap Dish Classic.)
Globe Brass Mfg. Co., The, Cleveland, O.
H. K. Triplex Sink—Kretschmer Mfg. Co., Dubuque, Ia.
Kold-or-Hot—Superior Brass Novelty Co., New York, N. Y.
Milwaukee Brass Mfg. Co., Milwaukee, Wis. (Three Water).
Morgan Bronze Co., The, Cleveland, O. "Whitehouse."
Mueller Co., Decatur, Ill.
Roberts—The Roberts Brass Mfg. Co., Detroit, Mich.

COCKS OR STOPS, SLIP JOINT.

Apex Brass Mfg. Co., Cleveland, O.
American Foundry & Mfg. Co., St. Louis, Mo.
American Sanitary Mfg. Co., Abingdon, Ill.
Burlington Brass Works, Burlington, Wis.
Capitol Brass Works, Detroit, Mich.
Central Brass Mfg. Co., Cleveland, O.
Clean Sweep—Detroit Sanitary Supply Co., Detroit, Mich.
Cochrane, J. A., Brass Mfg. Co. ,Cleveland, O.
Crane Co., Chicago, Ill.
Dick Brothers, Inc., Reading, Pa.
Edwardsville Brass Works, Edwardsville, Ill.
Exeter Brass Works, Exeter, N. H.
Farnan Brass Works, Cleveland, O.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Federal-Huber Co., Chicago, Ill.
Fisher Brass Co., The, Bellefontaine, O.
Gibson Bros. Mfg. Co., North Chicago, Ill.
Gopher—Union Brass & Metal Mfg. Co., St. Paul, Minn.
Hajoca Corporation, Philadelphia, Pa.
Haydenville Co., Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
I & M—Ireland & Matthews Mfg. Co., Detroit, Mich.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Milwaukee Flush Valve Co., Milwaukee, Wis.
Morgan Brass Mfg. Co., Cleveland, O.
Mott, J. L., Iron Works, Trenton, N. J.
Mueller Co., Decatur, Ill.
Okay—E. Stebbins Mfg. Co., Springfield, Mass.
Paragon—Paragon Brass Mfg. Co., Cleveland, O.
Peck Bros. & Co., New Haven, Conn.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Republic Brass Co., Cleveland, O.
S & K—Street & Kent Mfg. Co., Chicago, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Speakman Co., Wilmington, Del.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Sterling Brass Co., Cleveland, O.
United Brass Mfg. Co., Cleveland, O.
Wiseco—J. B. Wise, Inc., Watertown, N. Y.

COCKS (OR FAUCETS), SLOP SINK.

Bashlin Co., Warren, Pa.
Clean Sweep—Detroit Sanitary Supply Co., Detroit, Mich.
Columbia—Speakman Co., Wilmington, Del.
Douglas, John, Co., Cincinnati, O.
Gopher—Union Brass & Metal Mfg. Co., St. Paul, Minn.
Hajoca Corporation, Philadelphia, Pa.
Hansen Brass Mfg. Co., Grand Rapids, Mich.
Haydenville Co., The, Haydenville, Mass.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Lehnert & Co., New York, N. Y.
McShane Bell Foundry Co., Baltimore, Md.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Peck's Improved—Peck Bros. & Co., New Haven, Conn.
Quaturn—Chicago Faucet Co., Chicago, Ill.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Victor Brass Mfg. Co., Cleveland, O.
Wolff Mfg. Corp., Chicago, Ill.

COCKS, SPRING PLUG.

American Lubricator Co., Detroit, Mich.
Capitol Brass Works, Detroit, Mich.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Dole Valve Co., Chicago, Ill.
Exeter Brass Works, Exeter, N. H.
General Brass Company, Detroit, Mich.
Imperial Brass Mfg. Co., Chicago, Ill.
Lunkenheimer Co., Cincinnati, O.
Penberthy Injector Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, O.
Walworth—Walworth Company, Boston, Mass.
Williams, D. T., Valve Co., Cincinnati, O.

COCKS, STEAM.

American—American Injector Co., Detroit, Mich.
American—American Lubricator Co., Detroit, Mich
Buffalo—Fries & Co., Buffalo, N. Y.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich
Dole Valve Co., The, Chicago, Ill.
Duriron Co., Inc., Dayton, O.
Edna Brass Mfg. Co., The, Cincinnati, O.
Exeter Brass Works, Exeter, N. H.
Farnan Brass Works Co., The, Cleveland, O.
Flannery, P. J., Co., New Britain, Conn.
General Brass Company, Detroit, Mich.
Gibson Bros. Mfg. Co., North Chicago, Ill.
Griffiths, James A., & Son, Philadelphia, Pa.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Healey, Peter, Brass Foundry Co., Evansville, Ind.
Hennebohle Co., Chicago, Ill.
Indicator—Michigan Lubricator Co., Detroit, Mich.
K. M.—Kinsey & Mahler Co., Peoria, Ill.
Lunkenheimer Co., The, Cincinnati, O.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Mueller Co., Decatur, Ill.
Nichol & Co., Thos. J., Cincinnati, O.
P. & C.—Reading Steel Casting Co., Inc., Bridgeport, Conn.
Perkes, Chas., Co., Philadelphia, Pa.
Pittsburg Valve, Fdy. & Construction Co., Pittsburg Pa.
Pittsburg Valve & Fittings Co., Barberton, O.
Powell Co., The Wm., Cincinnati, O.
Powhatan Brass & Iron Works, Ranson, W. Va
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Rockford Brass Works, Rockford, Ill.
Stebbins, E., Mfg. Co., Springfield, Mass. "Okay."
Utica Valve & Fixture Co., Utica, N. Y.
Victory—Victory Mfg. Co., Niles, Cal.
Walworth Company, Boston, Mass
Williams—The D. T. Williams Valve Co., Cincinnati, O.

COCKS, STEAM GAGE.

Detroit—Detroit Lubricator Co., Detroit, Mich.
General Brass Company, Detroit, Mich.
National Brass Mfg. Co., Rochester, N. Y.
Powell, Wm., Co., The, Cincinnati, O.
Sterling & Skinner Mfg. Co., Detroit, Mich.
United States Gauge Co., New York, N. Y.

COCKS, STOP, AND STOP AND WASTE, COMPRESSION.

American Brass Mfg. Co., The, Cleveland O.
American Foundry & Mfg. Co., St. Louis, Mo.
Barrett Wastop—Cleveland Brass Mfg. Co., Cleveland, O.
Bashlin Co., The, Warren, Pa.
Belknap Mfg. Co., The, Bridgeport, Conn.
Bison, Buffalo—Fries & Co., Buffalo, N. Y.
Buckeye Brass & Mfg. Co., Cleveland, O.
Capitol—Capitol Brass Works, Detroit, Mich.
Chicago—The Ohio Injector Co., Wadsworth, O
Clow, James B., & Sons, Chicago, Ill.
Dart—E. M. Dart Mfg. Co., Providence, R. I.
Dearborn Brass Co., Cedar Rapids, Ia.
Dick Bros., Inc., Reading, Pa.
Edna Brass Mfg. Co., The, Cincinnati, O.
Edwardsville Brass Works, Edwardsville, Ill.
Elgin Brass Co., New York, N. Y.
Elm—F. W. Webb Mfg. Co., Boston, Mass.
Empire—The Empire Brass Mfg. Co., Cleveland, O
Exeter Brass Works, Exeter N. H.
Extra Pattern—Wolff Mfg. Corp., Chicago, Ill.
Farnan—Farnan Brass Works, Cleveland, O.
Flannery, P. J., Co., New Britain, Conn.
Ford—Ford Meter Box Co., Wabash, Ind.
Garratt & Co., W. T., San Francisco, Cal.
General Brass Company, Detroit, Mich.
Gibson Bros. Mfg. Co., North Chicago, Ill.
Globe Brass Mfg. Co. The, Cleveland, O.
Hajoca Corporation, Philadelphia, Pa.
Hammond Brass Works, Hammond, Ind.
Hanover—F. W. Webb Mfg Co., Boston, Mass.

Haydenville Co., The, Haydenville, Mass.
Haysco—Hays Mfg. Co., Erie, Pa.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Jaroco—James Robertson Mfg. Co., Baltimore, Md.
Kitson Co., Philadelphia, Pa.
Knox—Knox Mfg. Co., Philadelphia, Pa.
Loyal Brass Co., Cleveland, O.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Mueller Co., Decatur, Ill.
Newark Brass Works, Newark, N. J. (special).
Nichol, Thos. J. & Co., Cincinnati, O.
Okay—E. Stebbins Mfg. Co., Springfield, Mass.
Peck Bros. & Co., The, New Haven, Conn.
Peru Brass & Mfg. Co., Peru, Ind.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Reading Brass Works, Reading, Pa.
Powhatan Brass & Iron Works, Ranson, W. Va.
Richter—The Richter Brass Co., Cincinnati, O.
Rick—Rickersberg Brass Co., Cleveland, O.
Roberts Brass Mfg. Co., Detroit, Mich.
Royal Quality—Royal Brass Mfg. Co., The, Cleveland, O.
Schulte Brass Mfg. Co., Norwood, Cincinnati, O.
Schwander—Schwander Brass Mfg. Co., St. Louis, Mo
Sherman Mfg. Co., H. B., Battle Creek, Mich.
Standard Brass Casting Co., Oakland, Calif.
Sterling Brass Co., The, Cleveland, O.
Sterling—Sterling Faucet Co., Newcomerstown, O.
Street & Kent Mfg. Co., Chicago, Ill.
Triumph Brass Co., Columbus, Ohio. "Triumph."
Trojan Brass Mfg. Co., The, Cincinnati, O.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
Universal—Landers, Frary & Clark, New Britain, Conn.
Utica—Utica Valve & Fixture Co., Utica, N. Y.
Walworth Company, Boston, Mass.
Wolff Mfg. Corp., Chicago, Ill.

COCKS, STOP, AND STOP AND WASTE, GROUND KEY.

Acme Brass Works, Cleveland, O.
Acorn Pattern—Columbus Brass Co., Columbus, O.
American Foundry & Mfg. Co., St. Louis, Mo.
American Brass Mfg. Co., The, Cleveland, O.
A. & O.—Standard Sanitary Mfg. Co., Pittsburg, Pa.
Barrett Patent—The Cleveland Brass Mfg. Co., Cleveland, O.
Bison, Buffalo—Fries & Co., Buffalo, N. Y.
Chapman—Chapman Valve Mfg. Co., Indian Orchard, Mass.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Duro—Wolff Mfg. Corp., Chicago, Ill.
Eclipse—John C. Kupferle Fdy Co., St. Louis.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Empire—The Empire Brass Mfg. Co., Cleveland, O.
Exeter Brass Works, Exeter, N. H.
Farnan—Farnan Brass Works Co., The, Cleveland, O.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Flannery, P. J., Co., New Britain, Conn.
Garratt & Co., W. T., San Francisco, Cal.
General Brass Company, Detroit, Mich.
Gibson Bros. Mfg. Co., North Chicago, Ill.
Hamlin & Emery Brass Co., The, Boston, Mass.
Hancock Mfg. Co., Charlotte, Mich.
Hayden—The Haydenville Co., Haydenville, Mass.
Hays Mfg Co., Erie, Pa.
Healey Brass Foundry Co., Peter, Evansville, Ind.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Kelly—Thos. Kelly & Bro., Chicago, Ill.
Kitson—The Kitson Co., Philadelphia, Pa.
K. M.—Kinsey & Mahler Co., Peoria, Ill.
Loyal Brass Mfg. Co., Cleveland, O.
Lunkenheimer Co., Cincinnati, O.
Lyons—The Cleveland Brass Mfg. Co., Cleveland.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Mueller Co., Decatur, Ill.
National Brass Mfg. Co., Rochester, N. Y.
Nichol & Co., Thos. J., Cincinnati, O.
Osborn—Standard Sanitary Mfg. Co., Pittsburg, Pa.
P. & C.—Reading Steel Casting Co., Inc., Bridgeport, Conn.
Perkes. Chas., Co., Philadelphia, Pa.
Perkins, H. K., Co., The, Taunton, Mass.
Powhatan Brass & Iron Works, Ranson, W. Va.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Richter—The Richter Brass Co., Cincinnati, O.
Rick—Rickersberg Brass Co., Cleveland, O.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Rockford Brass Works, Rockford, Ill.
The Royal—Royal Brass Mfg. Co., Cleveland, O.
Schwander Brass Mfg. Co., St. Louis, Mo.
Standard Brass & Iron Works, Milwaukee, Wis.
Standard—Prier Brass Mfg. Co., Kansas City, Mo.
Stebbins, E., Mfg. Co., Springfield, Mass. "Okay."
Sterling Brass Co., The, Cleveland, O.
Total Eclipse—John C. Kupferle Foundry Co., St. Louis, Mo.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
Union Water Meter Co., Worcester, Mass.
United—United Brass Mfg. Co., Cleveland, O.
Universal—Landers, Frary & Clark, New Britain, Conn.
Utica Valve and Fixture Co., Utica, N. Y.
Walworth Company, Boston, Mass.
Wolff Mfg. Corp., Chicago, Ill.

COCKS, STOP, SELF-CLOSING.

Bashlin—The Bashlin Co., Warren, Pa.
Boston—Brookside Brass Foundry & Mfg. Co., Cleveland, O.
Boston—Haydenville Co., Haydenville, Mass.
Boston—Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Broughton—E. Stebbins Mfg. Co., Springfield, Mass.
Burlington—Burlington Brass Works, Burlington, Wis.
Century—Century Brass Works, Inc., Belleville, Ill
Chi-Fau-Co.—Chicago Faucet Co., Chicago, Ill.
Colonial—Mueller Co., Decatur, Ill.
Crown—Brookside Brass Foundry & Mfg. Co., Cleveland, O.
Doherty—The Brookside Brass Foundry & Mfg. Co., Cleveland, O.
Doherty—The Haydenville Co., Haydenville, Mass.
Doherty—J. J. Ryan & Co., Chicago, Ill.
Doherty—Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Doherty—Wolff Mfg. Corp., Chicago, Ill.
Economy—Brookside Brass Foundry & Mfg. Co., Cleveland, O.
Exeter Brass Works, Exeter, N. H.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis. (Trade names—Doherty, Viking.)
Marvel Mach. & Brass Works, Cleveland, Ohio.
Nichol, Thos. J., Co., The, Cincinnati, O.
Peerless—Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Rundle Mfg. Co., Milwaukee, Wis.
Star—Brookside Brass Foundry & Mfg. Co., Cleveland, O.

COCKS, THREE-WAY.

General Brass Company, Detroit, Mich.
Walworth Company, Boston, Mass.

COCKS, TRY.

General Brass Company, Detroit, Mich.

COCKS (OR STOPS), URINAL, COMPRESSION.

Brookside Brass Foundry & Mfg. Co., Cleveland, O.
Buffalo—Fries & Co., Buffalo, N. Y.
Crane Co., Chicago, Ill.
Doherty—Wolff Mfg. Corp., Chicago, Ill.
Eljer Co., Ford City, Pa.
Exeter Brass Works, Exeter, N. H.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Federal-Huber Co., Chicago, Ill.
Goetz Brass Co., Chicago, Ill.
Hampshire—Haydenville Co., The, Haydenville, Mass.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Lukomski Brothers Co., Detroit, Mich.
McShane Bell Foundry Co., Baltimore, Md.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Milwaukee Flush Valve Co., Milwaukee, Wis.
Mott, J. L., Iron Works, The, Trenton, N. J.
Mueller Co., Decatur, Ill.
Peck Bros. & Co., New Haven, Conn.
Powhatan Brass & Iron Works, Ranson, W. Va.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Stebbins, E., Mfg. Co., Springfield, Mass. "Okay."
Universal—Landers, Frary & Clark, New Britain, Conn.
Walworth Company, Boston, Mass.

COCKS (OR STOPS), URINAL, FULLER.

Clow, James B., & Son, Chicago, Ill.
Crane Co., Chicago, Ill.
Federal-Huber Co., Chicago, Ill.
Haydenville Co., Haydenville, Mass.
Peck's Improved—Peck Bros. & Co., New Haven, Conn.
Peerless—Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Street & Kent Mfg. Co., Chicago, Ill.
Wolff Mfg. Corp., Chicago, Ill.

COCKS (OR STOPS), URINAL, SELF-CLOSING.

Boston—Federal-Huber Co., Chicago, Ill.
Brookside Brass Foundry & Mfg. Co., The, Cleveland, O. (Trade names—Boston, Doherty.)
Haydenville Co., The, Haydenville, Mass. (Trade names—Boston, Doherty.)
Detroit Sanitary Supply Co., Detroit, Mich.
Doherty—Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Em-Ess—The Meyer-Sniffen Co., New York, N. Y.
Empire Brass Mfg. Co., The, Cleveland, O.
Farley—Crampton-Farley Brass Co., Kansas City, Mo.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Hays Mfg. Co., Erie, Pa.

Hoffmann & Billings Mfg. Co., Milwaukee, Wis. (Trade names—Doherty, Milwaukee, Pierce.)
Marvel Mach. & Brass Works, Cleveland, Ohio.
McShane Bell Foundry Co., Baltimore, Md.
Milwaukee Flush Valve Co., Milwaukee, Wis.
Moore's—Peck Bros. & Co., New Haven, Conn.
Mueller Co., Decatur, Ill.
Standard—Prier Brass Mfg. Co., Kansas City, Mo.
Street & Kent Mfg. Co., Chicago, Ill. (Trade names—Boston or Zane, S. & K.)
Victor Brass Mfg. Co., Cleveland, O.
Wolff Mfg. Corp., Chicago, Ill. (Trade names—Boston, Doherty.)

COCKS (OR FAUCETS), WATER COOLER

Allen Filter Co., Toledo, O.
American Foundry & Mfg. Co., St. Louis, Mo.
Bastian-Blessing Co., Chicago, Ill.
Century Brass Works, Inc., Belleville, Ill.
Crampton-Farley Brass Co., Kansas City, Mo.
Detroit Brass & Malleable Works, Detroit, Mich.
Douglas, John, Co., The, Cincinnati, O.
Federal-Huber Co., Chicago, Ill.
General Brass Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Loeffelholz Co., Milwaukee, Wis.
National Brass Mfg. Co., Rochester, N. Y.
Peck Bros. & Co., New Haven, Conn.
Perkes, Chas., Co., Philadelphia, Pa.
Puro-Sanitary Drinking Fountain Co., Haydenville, Mass.
Savill's, Thomas, Sons, Philadelphia, Pa.
Standard-Peninsular Brass Works, Detroit, Mich.
Taylor, Halsey W., Co., Warren, O.
Universal—Landers, Frary & Clark, New Britain, Conn.

COGS, WOOD.

Bowsher, N. P., Co., The, South Bend, Ind.
C. M. C.—Christiana Machine Co., Christiana, Pa.
Estes, E. B., & Sons, New York, N. Y.
Fitz Water Wheel Co., Hanover, Pa.
Lawson—The Menasha Wood Split Pulley Co. Menasha, Wis.
Medart Company, The, St. Louis, Mo.
Nordyke & Marmon, Inc., Indianapolis, Ind.
Poole Engineering & Machine Co., Baltimore, Md.
Wolf Company, The, Chambersburg, Pa.

COILERS OR SPRING WIRE.

Fostoria Screw Co., The, Fostoria, Ohio. "Rapid."
Hjorth Perfection—Hjorth Lathe & Tool Co., Boston.
Manville Machine Co., E. J., Waterbury, Conn.
Universal—Sleeper & Hartley, Inc., Worcester, Mass.
Wells, Frank L., Co., Kenosha, Wis.

COILS (AND BENDS), PIPE.

(See "Bends and Coils, Pipe.")

COLLARS, CLOSET BEND.

(See "Extension Pieces, W. C., Cast Iron.")

COLLARS, PIPE.

American District Steam Co., North Tonawanda, N. Y.
Worcester Pressed Steel Co., Worcester, Mass.

COLLARS, POLE.

Goodell-Pratt Co., Greenfield, Mass.

COLLARS, RELIEF, SAW.

Armstrong Mfg. Co., Portland, Ore.

COLLARS, SHAFT.

American Tool & Machine Co., Boston, Mass.
Barnard & Leas Mfg. Co., Moline, Ill.
Barry—R. & J. Dick Co., Passaic, N. J.
Barry—Barry Co., Muscatine, Ia.
Bliss & Laughlin, Inc., Harvey, Ill.
Brown, A. & F., Co., The, Elizabethport, N. J.
Bull Dog—Huron Industries, Inc., Detroit, Mich.
Caldwell, H. W., & Son Co., Chicago, Ill.
Chicago Pulley & Shafting Co., Chicago, Ill.
Constant XX Century Corp., Bloomington, Ill.
Dodge Mfg. Corp., Mishawaka, Ind.
Eastwood Co., Benjamin, Paterson, N. J.
Falls—Falls Clutch & Machinery Co., Kent, O.
Fritz, Geo. J., Foundry & Machine Co., St. Louis, Mo.
Golden's Foundry & Machine Co., Columbus, Ga.
Great Western Mfg. Co., Leavenworth, Kan.
Hallowell—Standard Pressed Steel Co., Jenkintown, Pa. (solid steel).
Hanson Clutch & Machinery Co., Tiffin, O.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Holscrew Bond Patent—Bond Foundry & Machine Co., Manheim, Pa.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Company, Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
Naylor Bros., Peekskill, N. Y.
Nordyke & Marmon, Inc., Indianapolis, Ind.
Philips Pressed Steel Pulley Works, Philadelphia, Pa.
Rex—Chain Belt Co., Milwaukee, Wis.
Royersford Foundry & Machine Co., Royersford, Pa.
Safety First Mfg. Co., Alexandria, Va.
Salem Foundry & Machine Works, Salem, Va.
Shartle—C. W. Shartle, Jr., Middletown, O.
Smith, Winfield H., Springville, Erie Co., N. Y. (Small.)
Sprout, Waldron & Co., Muncy, Pa.
Standco—Standard Pressed Steel Co., Jenkintown, Pa. (split).
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wheland—Wheland Co., Chattanooga, Tenn.
Williams & Co., J. H., Buffalo, N. Y.
Wolf Co., The, Chambersburg, Pa.
Wood, T. B., Sons Company, Chambersburg, Pa.

COLLARS, SHINGLE SAW.

Hill-Curtis Co., Kalamazoo, Mich.
Southern Saw Works, Atlanta, Ga.

COLLARS, SPACING, FOR MILLING CUTTERS.

Wear Ever—Scully-Jones & Co., Chicago, Ill.

COLLECTORS, EXHAUSTERS (OR BLOWER SYSTEMS), FOR SHAVINGS, DUST, ETC.

Allen & Billmyre Company, Inc., New York, N. Y.
Allington & Curtis Mfg. Co., Saginaw, Mich.
Bayley Mfg. Co., Milwaukee, Wis.
Bi-Cal-ky—Hersh Bros. Co., Allentown, Pa.
Buffalo Forge Co., Buffalo, N. Y.
Cleveland Blow Pipe & Mfg. Co., Cleveland, O.
Connecticut Blower Corp., Hartford, Conn.
Constant XX Century Corp., Bloomington, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Dust Recovering & Conveying Co., Cleveland, Ohio.
Federal Pneumatic Systems, Inc., Chicago, Ill.
Grand Rapids Blow Pipe & Dust Arrester Co., Grand Rapids, Mich.
Hald Blow Pipe Works, Inc., Brooklyn, N. Y.
Heat-Rite—John E. Mannen Co., Cleveland, O.
Ilg Electric Ventilating Co., Chicago, Ill.
Invincible Blow Pipe & Laundry Equipment Co., The, Chicago, Ill.
Leiman Bros., New York, N. Y.
National Blow Pipe & Mfg. Co., Ltd., New Orleans, La.
New Cyclone—Kirk & Blum Mfg. Co., Cincinnati, O.
New England Ventilating & Heating Co., Providence, R. I.
New Haven Sand Blast Co., New Haven, Conn.
Nordyke & Marmon Co., Indianapolis, Ind.
Northern Blower Co., Cleveland, Ohio. "Norblo."
Paxson, J. W., Co., Philadelphia, Pa.
Ramey Co., The Columbus, O. "Cyclone."
Skinner Bros. Mfg. Co., St. Louis, Mo.
Sterling—Sterling Blower Co., Hartford, Conn.
Stroud, E. H., & Co., Chicago, Ill.
Sturtevant—B. F. Sturtevant Co., Hyde Park, Mass.
Swartwout—The Swartwout Co., Cleveland, O.
Union Twist Drill Co., Athol, Mass.
U. S. Blow Pipe & Dust Collecting Co., Chicago, Ill.
Wings—L. J. Wing Mfg. Co., New York, N. Y.
Wolf Co., The Chambersburg, Pa.

COLLETS, FOR HOLDING DIES, DRILLS, ETC.

Apex Machine Co., The, Dayton, O.
Bay State—Bay State Tap & Die Co., Mansfield, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cleveland Twist Drill Co., Cleveland, O.
Geometric—The Geometric Tool Co., New Haven, Conn.
Hardinge Bros., Inc., Chicago, Ill.
Magic—Consolidated Machine Tool Corp. of America, New York, N. Y.
Rivett Lathe & Grinder Corporation, Boston, Mass.
Threadwell Tool Co., The, Greenfield, Mass.
Whitney—Whitney Mfg. Co., Hartford, Conn.
Wizard—McCrosky Tool Corp., Meadville, Pa.

COLUMNS, LUBRICATOR.

Musgrave—Star Brass Mfg. Co., Boston, Mass.

COLUMNS, MERCURY.

Always Reliable—Otto Bernz Co., Newark, N. J.
Feather Mercury Gauge Mfg. Co., Bloomfield, N. J.
Garrison-Heiland Corp., New York, N. Y.
Keystone—C. H. Yonts Co., The, Meadville, Pa.

COLUMNS, WATER.

(See also "Gages, Water Column.")

American Foundry & Mfg. Co., St. Louis, Mo.
American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Ashcroft—The Ashcroft Mfg. Co., New York, N. Y.
Ashton—The Ashton Valve Co., Cambridge, Mass.
Bordo—L. J. Bordo Co., Philadelphia, Pa.

Casey-Hedges Co., The, Chattanooga, Tenn.
Edward—Edward Valve & Mfg. Co., East Chicago, Ind.
Fancy, Special, Philadelphia—Nason Mfg. Co., New York, N. Y.
Garratt & Co., W. T., San Francisco, Cal.
Glenn Mfg. Co., St. Charles, Ill.
Jerguson—Jerguson Gage & Valve Co., Somerville, Mass.
Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Kaltenhaler, H. J., Philadelphia, Pa.
Kieley & Muller, New York, N. Y. "Kieley."
Kitts Mfg. Co., Oswego, N. Y.
Lunkenheimer Co., The, Cincinnati, O.
Pittsburgh Valve & Fittings Co., Barberton, O.
Powell Co., The Wm., Cincinnati, O.
Reliance Gauge Column Co., Cleveland, O.
Reliance—The Paul B. Huyette Co., Philadelphia, Pa.
Roberts Steam Specialty Co., Cleveland, O.
Sherwood Mfg. Co., Buffalo, N. Y.
Star—Star Brass Mfg. Co., Boston, Mass.
Vigilant—The Lunkenheimer Co., Cincinnati, O.
Walworth Company, Boston, Mass.
Williams—Williams Gauge Co., The, Pittsburgh, Pa.

COLUMNS, WATER, SAFETY.

Anderson, V. D., Co., Cleveland, O.
Eclipse—Illinois Engineering Co., Chicago, Ill.
Kieley & Muller, New York, N. Y. "Kieley."
Kitts Mfg. Co., Oswego, N. Y.
Oswego—Kitts Steam Specialties Co., Oswego, N. Y.
Pittsburgh—Pittsburgh Gage & Supply Co., Pittsburg, Pa.
Reliance Gauge Column Co., The, Cleveland, O.
Roberts—The Roberts Steam Specialty Co., Cleveland, O.
Walworth Company, Boston, Mass.
Williams—The Williams Gauge Co., Pittsburgh, Pa.
Wright-Austin Co., Detroit, Mich.

COMPARATORS, TAP.

Greenfield Tap & Die Corp., Greenfield, Mass.

COMPASSES, CARPENTERS AND MACHINISTS.

Athol Machine Co., Athol, Mass.
Bemis & Call Hardware & Tool Co., Springfield, Mass
Bernz, Otto Co., Newark, N. J.
Johnson, Wm., Firm of, Newark, N. J.
Peck, Stow & Wilcox Co., Southington, Conn.
Sargent & Co., New Haven, Conn.
Starrett, L. S., Co., Athol, Mass.
White, L. & I. J. Co., Buffalo, N. Y.

COMPOUND, ANTI-FREEZING FOR FIRE BUCKETS.

Freeze-No-More—Corliss Supply & Mfg. Co., St. Louis, Mo.

COMPOUNDS, BOILER.

Aetna—Aetna Boiler Compound Co., Chicago.
Algor Boiler Syrup—Curry Bros. Oil Co., Boston, Mass.
American Boiler-Life—American Boiler-Life Co., Boston, Mass.
Amoilco—American Oil Corp., Jackson, Mich.
Arlington—Arlington Mfg. Co., The, Canton, O.
Arr-An-See—ARR-AN-SEE Mfg. Co., St. Louis, Mo.
Arrow—Arrow Boiler Compound Co., St. Louis, Mo
Artesian—Adkins, Young & Allen Co., Chicago, Ill.
Banner—Cortland Specialty Co., Cortland, N. Y.
Black-Bear—The Black Bear Co., Long Island City, N. Y.
Boiler-Kleen—Walter H. Wild, Philadelphia, Pa.
Boiler-Kote—Boiler-Kote Co., The, Chicago, Ill.
Buffalo—Buffalo Belting Works, Buffalo, N. Y.
Climax—J. A. Zibell Co., New York, N. Y.
Corliss Water Purifier—Corliss Supply & Mfg. Co., St. Louis, Mo.
Crane's—James W. Crane Co., Inc., Brooklyn, N. Y.
Dad McCoy's—McCoy Mfg. Co., Garwood, N. J.
Dearborn Chemical Co., Chicago, Ill.
Dissolene Company, Hempstead, N. Y.
Dixon's Graphite—Jos. Dixon Crucible Co., Jersey City, N. J.
Economy—Economy Lubricating Co., Boston, Mass.
Economy—Economy Scale Remover Co., Chicago Heights, Ill.
EoCo—Economy Oil Co., Chicago, Ill.
Electro—The Henry Johnson Co., Jersey City, N. J.
Ensign Refining Co., The, Cleveland, Ohio.
Eureka—Dodge Mfg. Corp., Mishawaka, Ind.
Fluoride—D. D. Williamson & Co., New York, N. Y.
Globe Boiler Compound Co., Binghamton, N. Y.
Great Western Oil Co., Cleveland, O.
H. G.—The Jas. B. Hunt Mfg. Co., Trenton, N. J.
Harris—A. W. Harris Oil Co., Providence, R. I.
Hawk-Eye—Hawk-Eye Compound Co., Blue Island, Ill.
Hayner's—Norman C. Hayner Co., Rochester, N. Y.
Illinois—Illinois Boiler Cleaning Compound Co., Chicago, Ill.
Ironsides—The Ironsides Co., Columbus, O.
I. X. L.—W. J. Kramer Oil Co., Milwaukee, Wis.
L. C. M. S.—The Garland Co., Cleveland, O.
Lake Erie Mfg. Co., Buffalo, N. Y.
Lord's—Engineering Supply Co., Philadelphia, Pa.
Lubriko Co., The, Philadelphia, Pa.
Lux, L. A., Co., The, Cleveland, O.
Matchless—Albion Mfg. Co., Seattle, Wash.
McVicker—Wm. B. McVicker Co., Brooklyn, N. Y.
Metalene—Metalene Chemical Co., The, Cleveland, O
Metla-Cota—State Mfg. Co., Cleveland, O.
Mid-West Chemical Co., Milwaukee, Wis.
Modoc—The Modoc Co., Inc., Fernwood, Pa.
Moore Oil Refining Co., The, Cincinnati, O.
National—National Boiler Specialties Co., Elgin, Ill.
Navy—Oleum Products Co., Scranton, Pa.
Neverfail Scale Solvent—Boiler Sealtite Co., Chicago, Ill.
New Era Mfg. Co., The, Kalamazoo, Mich.
Old Dan—Lang Chemical Co., Detroit, Mich.
O.K.—Chas. Nuhring & Bro., Cincinnati, O.
Ozark Mfg. Co., Cleveland, O.
Peandeco—Plant Engineering & Equipment Co., Brooklyn, N. Y.
Peerless—Lynch-Clarisey Co., Chicago, Ill.
Perolin—Perolin Co. of America, Chicago, Ill.
Protecto—Standard Chemical Co., Kalamazoo, Mich.
Pyramid—The Binghamton Boiler Compound Co., Binghamton, N. Y.
Quickure—The Thomas Company, Philadelphia, Pa.
Radiex—Radiex Sales Co., New York, N. Y. (Formerly known as Gunby's Lavadura.)
Red Seal—The Cherry Chemical Co., Philadelphia, Pa
Russell—Russell-Kinkaid Co., Chicago, Ill.
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.
Shawmut—Shawmut Chemical Co., Boston, Mass.
Skalax Resolvent—K. E. K. Mfg. Co., Inc., Syracuse, N. Y.
Skayl-Deth—Cleveland Flue Cleaner Mfg. Co., Cleveland, O.
Solvol—Duryea Mfg. Co., Bayonne, N. J.
Sonneborn Sons, Inc., L., New York, N. Y.
Stephenson—Stephenson Mfg. Co., Albany, N. Y.
Stuart's—D. A. Stuart & Co., Chicago, Ill.
Sugar Beet Products Co., Saginaw, Mich.
Sumac—The Johnson Compound & Supply Co., Rochester, N. Y.
Superflake—Superior Flake Graphite Co., Chicago, Ill.
Superior—Doermann-Roehrer Co., Cincinnati, O.
Tegu-film—K. E. K. Mfg. Co., Inc., Syracuse, N. Y.
True Blue American—Economy Lubricating Co., Boston, Mass.
U. S. G. Co.'s—United States Graphite Co., Saginaw, Mich.
Vulcanite—United States Boiler Compound Co., Chicago, Ill.
Warley's—Thos. C. Warley & Co., Philadelphia, Pa.
Western Boiler Compound & Chemical Co., Kansas City, Mo.
Winner—The Winner Co., New York, N. Y.
World Refining Co., The, Easton, Pa.
"X"—X Laboratories, New York, N. Y.
Young's Boiler Compound Co., Catasauqua, Pa.

COMPOUND, BOILER SEALING

(See also "Compound, Radiator Leak")

Boile Rite— Kemoshyne Products, Inc., New York, N. Y.
Boiler Sealtite Co., Chicago, Ill.
Boyer Chemical Laboratory Co., The, Chicago, Ill.
Economy Scale Remover Co., Chicago Heights, Ill.
Hermatic Company, Philadelphia, Pa.
Whiz—The R. M. Hollingshead Co., Camden, N. J.
"X"—"X" Laboratories, New York, N. Y.

COMPOUNDS AND FLUXES, BRAZING

Allen—L. B. Allen Co., Inc., Chicago, Ill. (steel and iron).
American Brass Co., The, Bridgeport, Conn.
American Compound Co., Boston, Mass.
Anti-Borax Compound Co., Fort Wayne, Ind.
Atkins, E. C., & Co., Indianapolis, Ind.
Atlas-Irvington—Atlas Foundry C., Irvington, N. J.
Crescent—North American Smelting Co., Philadelphia, Pa.
Eagle Smelting & Refining Works, New York, N. Y.
Laffitte Brazing Plates, Unifonte—The Phillips-Laffitte Company, Philadelphia, Pa.
Meco—Modern Engineering Co., St. Louis, Mo.
Metallic Phosphoro—New Era Mfg. Co., Kalamazoo, Mich.
Michigan Smelting & Refining Co., Detroit, Mich.
Star—U. T. Hungerford Brass & Copper Co., New York, N. Y.
Stickerino—Armstrong Mfg. Co., Portland, Ore.
Torchweld Equipment Co., Chicago, Ill. (Trade names —Torchweld, Universal.)

COMPOUNDS, BUFFING & POLISHING.

Clover Mfg. Co., Norwalk, Conn.
Harrison & Co., Haverhill, Mass.
Tripoli—Hill & Griffith Co., Cincinnati, O.

COMPOUNDS, CASE HARDENING AND TEMPERING.

American Compound Co., Boston, Mass. (Trade names—American, Universal.)
Buchanan, C. G., Chemical Co., Cincinnati, O. (Trade names—Buchanan, Ferro Case.)
Case-Hardo—The Thos. Buchanan Co., Cincinnati, O.
Crescent—Anti-Borax Compound Co., Forth Wayne, Ind.
Drawite, B.-G. Compound, Enamelite, Caseite—Bell & Gossett Co., Chicago, Ill.
Heat-Easy—Bennett Metal Treating Co., Hartford, Conn.
Houghton & Co., E. F., Philadelphia, Pa.
Kasenit Co., New York, N. Y. (Trade names—Anti-Cementite, Kasenit.)
Klean Heat—Park Chemical Co., Detroit, Mich.
Lafflitte Tempering Powder—The Phillips-Lafflitte Co., Philadelphia.
Macalene Company, The Saint Cloud, Minn.
Shore Instrument & Mfg. Co., The, Jamaica, N. Y. (Trade names—Localcase, Localhard.)

COMPOUNDS AND LUBRICANTS, COMMUTATOR.

Albion—Albion Mfg. Co., Seattle, Wash.
Allen, L. B., Co., Inc., Chicago, Ill.
Allerton's—Warren Lubricant Co., Buffalo, N. Y.
Martindale Electric Co., The, Cleveland, O. "Imperial."
Ohio—The Ohio Grease Co., Loudonville, O.

COMPOUNDS AND OILS, CORE.

Acme—The Acme Mfg. Co., Cleveland, O.
Buckeye Products Co., The, Cincinnati, Ohio.
Climax, Green Seal—Phoenix Oil Co., Cleveland, O.
Ebony—Hill & Griffith Co., Cincinnati, O.
Federal Foundry Supply Co., The, Cleveland, O.
Great Western Oil Co., The, Cleveland, O.
Kellogg—Spencer Kellogg & Sons, Inc., Buffalo, N. Y.
Linoil—The Werner G. Smith Co., Cleveland, O.
McCormick, J. S. Co., Pittsburgh, Pa.
Metal Lubricants Co., Chicago, Ill.
Mohtan—Marden, Orth & Hastings Co., New York, N. Y.
Rolinco—Bayerson Oil Works, Erie, Pa.
Sero Specialty Co., Cleveland, O.
Swan-Finch Oil Corp., New York. Trade names—Acme, Bison, Century, Corul, Victory.

COMPOUNDS AND OILS, CUTTING, DRILLING, THREADING, MILLING, METAL DRAWING, ETC.

(See also "Oils, Screw Cutting")

Accrus, Meritus, Paramus—International Refining & Mfg. Co., Evanston, Ill.
Acme Mfg Co., The, Cleveland, O. (Trade names—Acme, Acmelene, Acmesol, Apcolard.)
American—American Oil Corp., Jackson, Mich.
Aquadag, Oildag—Acheson Oildag Co., Port Huron, Mich.
Baum's Castorine Co., Rome, N. Y.
Blue Seal—Blue Seal Chemical Co., Roselle, N. J.
Challenge—Magie Bros., Chicago, Ill.
Cut-Rite, Ajax, Keep Kool—The Phoenix Oil Co., Cleveland, O.
Corliss—Corliss Supply & Mfg. Co., St. Louis, Mo.
Damascus—Damascus Mfg. Corp., Cleveland, O.
Dascolene, Dasco Soluble, Kleen Kut Soluble, Super Kool Base, X-Celene—D. A. Stuart Co., Chicago, Ill.
Economy—White & Bagley Co., The, Worcester, Mass.
Emulso—Sun Company, Philadelphia, Pa.
Great Western Oil Co., The, Cleveland, O.
Houghtolard, Solcut, Cyl-Tal—E. F. Houghton & Co., Philadelphia, Pa.
Ironsides—The Ironsides Co., Columbus, O.
Lube-Well, Lubro-Kool, Near-a-Lard, Frigidol, Lube-a-Tube TDC, Vastolein, Grind-Well, Lubric Hydraulic—G. Whitfield Richards, Philadelphia, Pa.
Metal Lubricants Co., Chicago, Ill.
Minolard—White & Bagley Co., Worcester, Mass.
No Leaks—The Boyer Chemical Laboratory Co., Chicago, Ill.
Olproco—Oleum Products Co., Scranton, Pa.
Oakite—Oakley Chemical Co., New York, N. Y.
Palubco—Pennsylvania Lubricating Co., Pittsburgh, Pa.
Pennzoil Lubro—Oil City Oil & Grease Co., Oil City, Pa.
Swan-Finch Oil Corp., New York. Trade names—Alpha, Bison, Catac, Drawine, Efficiency, Diakret, Larcul, Mystic, Perfection, Viscosity.
Warley's—Thomas O. Warley & Co., Philadelphia, Pa.
Waverly—Waverly Oil Works Co., Pittsburgh, Pa.
World Refining Co., The, Easton, Pa.

COMPOUND, HYDRAULIC ELEVATOR.

Accrus—International Refining & Mfg. Co., Evanston, Ill.
Acme Oil Works, Philadelphia, Pa.
Economy Oil Co., Chicago, Ill.
McVicker—Wm. B. McVicker Co., Brooklyn, N. Y.
Warley's—Thomas O. Warley & Co., Philadelphia, Pa.

COMPOUNDS, PIPE JOINT.

(See "Cement, Pipe Joint")

COMPOUND, RADIATOR AND BOILER LEAK.

Blue Ribbon—International Metal Polish Co., Indianapolis, Ind.
Boile Rite— Kemoshyne Products, Inc., New York, N. Y.
Economy—Economy Scale Remover Co., Chicago Heights, Ill.
Plumbine—Stone & Tar Products Co., Brooklyn, N. Y.
Radiator Specialty Co., Charlotte, N. C.
Whiz—R. M. Hollingshead Co., Camden, N. J.
"X"—X Laboratories, New York, N. Y.

COMPOUNDS, SLUSHING.

No-Rust—Phoenix Oil Co., Cleveland, Ohio.
Warren Chemical Div., The Barrett Co., New York.

COMPOUNDS, VALVE GRINDING.

Baum's Castorine Co., Rome, N. Y.
Carborundum Co., The, Niagara Falls, N. Y.
Clover Mfg. Co., Norwalk, Conn.
Economy—White & Bagley Co., The, Worcester, Mass.
Hoppen, J. E., & Sons, Belleville, N. J. (powder).
Lunkenheimer Co., The, Cincinnati, O.
Monarch Mfg. Co., Council Bluffs, Ia.
Norwesco—Northwestern Chemical Co., Marietta, O.
Oakite—Oakley Chemical Co., New York, N. Y.
Trojan—H. G. Hammett, Troy, N. Y.

COMPOUNDS, WATER SOFTENING.

(See "Compounds, Boiler.")

COMPOUNDS AND PAINTS, WATERPROOFING.

Aquanon—Warren Chemical Div., The Barrett Co., New York, N. Y.
Concrewaltum—Goheen Corp. of N. J., Newark, N. J.
Genasco—The Barber Asphalt Co., Philadelphia, Pa.
General Fireproofing Co., Youngstown, O.
Iron-Stone—Stone & Tar Products Co., Brooklyn, N. Y.
Lucas, John, & Co., Inc., Philadelphia, Pa.
Protection Products, Inc., Kalamazoo, Mich. "Protection."
Smooth-On—Smooth-On Mfg. Co., Jersey City, N. J.
Texacoat—The Texas Company, New York, N. Y.

COMPOUND OR FLUX, WELDING.

(See "Flux, Foundry and Welding.")

COMPRESSORS, AIR AND GAS.

Abbe Engineering Co., New York, N. Y.
A. F. S. Machine Co., Toledo, O. (portable).
Allis-Chalmers Co., Milwaukee, Wis.
American, Marsh—American Steam Pump Co., Battle Creek, Mich.
American Fairhurst—American Air Compressor Works, Brooklyn, N. Y.
Baker Rotary—Baker-Hansen Mfg. Co., Oakland, Cal.
Barr "Unit-Compound"—Pennsylvania Pneumatic Co., Erie, Pa.
Beach-Russ—Beach-Russ Co., New York, N. Y.
Bessemer—Bessemer Gas Engine Co., Grove City, Pa.
Birmingham Machine & Foundry Co., Birmingham, Ala.
Black & Decker Mfg. Co., The, Towson, Md. (electric)
Blakeslee—Blakeslee Mfg. Co., DuQuoin, Ill.
Brunner—Brunner Mfg. Co., Utica, N. Y.
Burnham—Union Steam Pump Co., Battle Creek, Mich.
Bury Compressor Co., Erie, Pa.
Carlin, John H., Machine Co., Inc., Pittsburgh, Pa.
Champion Pneumatic Machinery Co., Chicago, Ill.
Chicago Pneumatic Tool Co., New York, N. Y. "C. P."
Chicago Pump Co., Chicago, Ill.
Cincinnati Refrigerating Machinery Co., Cincinnati, Ohio.
Clark—Clark Bros. Company, Olean, N. Y.
Connellsville Mfg. & Mine Sup. Co., Connellsville, Pa.
Cooper—The C. & G. Cooper Co., Mt. Vernon, Ohio.
Cramp, Wm., & Sons, Ship & Engine Building Co., The, Philadelphia, Pa.
Crowell Mfg. Co., Brooklyn, N. Y.
Curtis & Co., Mfg. Co., St. Louis, Mo.
Curtis Pneumatic Mach'y Co., St. Louis, Mo.
Davis—Hinckley Machine Works, Hinckley, Ill.
De Laval—De Laval Steam Turbine Co., Trenton, N. J.
Deming Co., The, Salem, O.
Domestic—Domestic Engine & Pump Co., Shippensburg, Pa.
Dunning—Dunning Compressor Co., Philadelphia, Pa. (portable).

Empire—Bishop & Babcock Co., Cleveland, O.
Fairbanks—The Fairbanks Co., New York, N. Y.
Fairbanks-Morse—Fairbanks, Morse & Co., Chicago.
Faultless—American Scale Co., Kansas City, Mo.
Filer & Stowell Co., Milwaukee, Wis.
F. B.—Furness Bros. Co., Chicago, Ill.
Gardner Governor Co., The, Quincy, Ill. (Trade names—Gardner, Gardner-Rix, Junior Monarch.)
General Compressed Air & Vacuum Machinery Co., St. Louis, Mo.
General Electric Co., Schenectady, N. Y.
General Fire Extinguisher Co., New York, N. Y.
Globe Mfg. Co., Chicago, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y. (Hand). "Lightning."
Grammes, L. F., Sons, Allentown, Pa. (for air blast on machines).
Hall—Hall Steam Pump Co., Pittsburg, Pa.
Hauck Mfg. Co., Brooklyn, N. Y.
Hoovens, Owens, Rentschler Co., Hamilton, O
Hope Engineering & Supply Co., Pittsburg, Pa.
Hope Forge & Machine Co., The, Mt. Vernon, O.
Ingersoll-Rand Co., New York, N. Y.
I. X. L.—The I. X. L. Pump Mfg. Co., Philadelphia, Pa.
Jackson Rotary—The Jackson Compressor Co., Denver, Colo.
Jarecki Mfg. Co., Erie, Penna.
Johnson—Johnson Service Co., Milwaukee, Wis.
Juruick—The American Engineering Co., Philadelphia, Pa.
Kotten Machine Co., Jersey City, N. J.
Lammert & Mann Co., Chicago, Ill.
Latta & Martin Pump Co., Hickory, N. C.
Leiman Bros., New York, N. Y.
Lipman Pump Works, Rockford, Ill.
Loane—Loane Engineering Co., Baltimore, Md.
Lucas-Miner Pump Co., Dayton, Ohio.
Machine Shop Equipment Co., Grove City, Pa.
Manistee—Manistee Iron Works Co., Manistee, Mich.
Marsh—American Steam Pump Co., Battle Creek, Mich.
Mesta Machine Co., The, Pittsburg, Pa.
Miller—Miller Improved Gas Engine Co., Springfield, Ohio.
Milwaukee Air Power Pump Co., Milwaukee, Wis.
Milwaukee Tank Works, Inc., Milwaukee, Wis.
Myers—Myers Machine Tool Corp., Columbia, Pa.
National Brake & Electric Co., Milwaukee, Wis.
National Steam Pump Co., The, Upper Sandusky, O.
National—National Utilities Corp., Milwaukee, Wis
New York Air Brake Co., The, New York.
Nordberg—Nordberg Mfg. Co., Milwaukee, Wis.
Norwalk Iron Works Co., The, South Norwalk, Conn.
Novo—Novo Engine Co., Lansing, Mich.
Oro—The Auto Compressor Co., Wilmington, O.
Pattin Bros. Co., The, Marietta, O.
Paul—Fort Wayne Engineering & Mfg. Co., Fort Wayne Ind.
Peerless—American Compressor & Pump Co., Baltimore, Md.
Pennsylvania Pump & Compressor Co., Easton, Pa.
Quincy Compressor Co., Quincy, Ill. "Quincy."
Roots, P. H. & F. M., Co., Connersville, Ind.
Ruemmeli-Dawley Mfg. Co., The, St. Louis, Mo.
Schramm, Inc., West Chester, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Selas Co., The, Philadelphia, Pa.
Simons Paint Spray Brush Co., Dayton, O.
Spencer Turbine Co., Hartford, Conn.
Standard—Plant Engineering & Equipment Co., Brooklyn, N. Y.
Tabco—Allen & Billmyre Co., Inc., New York, N. Y.
Taylor Instrument Co., Rochester, N. Y.
Ten Eyck—Ten Eyck Pump Co., Auburn, N. Y.
Trimount Rotary Power Co., East Dedham, Mass.
Union Equipment Co., Butler, Pa.
Union, Burnham—Union Steam Pump Co., Battle Creek, Mich.
United States Air Compresssor Co., Cleveland, O.
Vilter Mfg. Co., Milwaukee, Wis.
Vogt Brothers Mfg. Co., Louisville, Ky.
Warlo—Ward-Love Pump Corp., Rockford, Ill.
Wayne Tank & Pump Co., Ft. Wayne, Ind.
Westinghouse Traction Brake Co., Pittsburgh, Pa.
Wiegand's—I. H. Johnson, Jr., Co., Inc., Philadelphia
Worthington Pump & Machinery Corp., New York.
Zin-Ho—The Mundie Mfg. Co., Peru, Ill.

COMPRESSORS, AIR, FOR GARAGES.

A. F. S. Machine Co., Toledo, O.
American—American Steam Pump Co., Battle Creek, Mich.
Au-to No. O—Auto Compressor Co., Wilmington, O
Bishop & Babcock Co., The, Cleveland, O.
Curtis—Curtis & Co. Mfg. Co., St. Louis, Mo.
Faultless—Vulcan Mfg. Co., Kansas City, Mo.
Gardner—The Gardner Governor Co., Quincy, Ill.
Globe—American Pump & Tank Co., New York.
Lectroflater—Black & Decker Mfg. Co., Towson, Md.
Longstroke—Motor Starter & Air Pump Co., The Newark, N. J.
Lucas-Miner Pump Co., Dayton, Ohio.
Quincy Compressor Co., Quincy, Ill.
Standard—National Standard Co., Niles, Mich.
Warlo—Ward-Love Pump Corp., Rockford, Ill.

COMPRESSORS, AIR, HYDRAULIC.

Big Wonder—Bishop & Babcock Co., The, Cleveland, O
Champion—The Cleveland Faucet Co., Cleveland, O
Eureka—Bishop & Babcock Co., Cleveland, O.
Little Wonder—Bishop & Babcock Co., The, Cleveland, Ohio.
Nash—Nash Engineering Co., South Norwalk, Conn
National Regulator Co., Chicago, Ill.
Powers—The Powers Regulator Co., Chicago, Ill.
Strater's—Herman Strater & Sons, Boston, Mass.

COMPRESSORS, AMMONIA.

Carbondale Machine Co., Carbondale, Pa.
Cincinnati Refrigerating Machinery Co., Cincinnati, Ohio.
Consolidated Mfg. Co., Dayton, O.
Hope Forge & Machine Co., The, Mt. Vernon, O.
Ingersoll-Rand Co., New York, N. Y.
Juruick—The American Engineering Co., Philadelphia, Pa.
Marine Iron Works, Chicago, Ill.
Norwalk Iron Works Co., The, South Norwalk, Conn.
Rite Built—Columbus Iron Works Co., Columbus, Ga.
Triumph Electric Co., Cincinnati, O.
Vilter Mfg. Co., Milwaukee, Wis.
Vogt Brothers Mfg. Co., Louisville, Ky.
Worthington Pump & Machinery Corp., New York, N. Y.

COMPRESSORS, GASOLINE EXTRACTORS.

Gardner Governor Co., Quincy, Ill.

COMPRESSOMETERS.

Foxboro Co., Inc., The, Foxboro, Mass.

CONDENSERS, OIL AND WATER.

Simons Paint Spray Brush Co., Dayton, Ohio.

CONDENSERS, PUMP.

Davidson, M. T., Co., New York, N. Y.
Marsh—American Steam Pump Co., Battle Creek, Mich.
McGowan—John H. McGowan Co., The, Cincinnati, O.

CONDENSERS, STEAM, JET, SURFACE AND BAROMETRIC.

Admiralty—The Wheeler Condenser & Engineering Co., Carteret, N. J.
Alberger—Alberger Pump & Condenser Co., New York, N. Y.
Alberger Heater Co., Buffalo, N. Y.
Allis-Chalmers Mfg. Co., Milwaukee, Wis.
American-Marsh—American Steam Pump Co., Battle Creek, Mich.
Blake—Blake Pump & Condenser Co., Fitchburg, Mass.
Buffalo Steam Pump Co., Buffalo, N. Y.
Bulkley—M. W. Kellogg Co., New York.
Cameron—A. S. Cameron Steam Pump Works, New York, N. Y.
Chicago Pneumatic Tool Co., New York, N. Y. "Chicago-Boyer."
Connersville—Connersville Blower Co., Connersville, Ind.
Cramp, Wm., & Sons, Ship & Engine Building Co., The, Philadelphia, Pa.
Cresson-Morris Co., Philadelphia, Pa.
Davidson, M. T., Co., New York, N. Y.
Elliott-Ehrhart—Elliott Co., Jeannette, Pa.
Garrett, W. D., & Co., New York, N. Y.
Goubert—Griscom-Russell Co., New York, N. Y.
Helander—The Mesta Machine Co., Pittsburg, Pa.
Ingersoll Rand—Ingersoll Rand Co., New York.
Koerting—Schutte & Koerting Co., Philadelphia, Pa.
Lancaster Iron Works, Inc., Lancaster, Pa.
McGowan—The John H. McGowan Co., Cincinnati, O. O.
Mesta—Mesta Machine Co., Pittsburgh, Pa.
Nordberg—Nordberg Mfg. Co., Milwaukee, Wis.
Petroleum Iron Works Co., Sharon, Pa.
Portland Co., The, Portland, Me.
R. D.—Ruemmeli-Dawley Mfg. Co., St. Louis, Mo.
Ross—Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Roturbo—Manistee Iron Works Co., Manistee, Mich.
Standard Multicoil—Standard Water Systems Co. of New Jersey, Hampton, N. J.
Union Steam Pump Co., Battle Creek, Mich. (Jet and surface.)
Victory Mfg. Co., Niles, Calif.
Vilter—The Vilter Mfg. Co., Milwaukee, Wis.
Weiss—Southwark Foundry & Machine Co., Philadelphia, Pa.

Westinghouse, Leblanc—Westinghouse Electric and Mfg. Co., Philadelphia, Pa.
C. H. Wheeler—C. H. Wheeler Mfg. Co., Philadelphia, Pa.
Worthington—Worthington Pump & Machinery Corp., New York.

CONDUIT, UNDERGROUND STEAM LINE.

Ric-Wil Company, The, Cleveland, Ohio. (See advertisement on page 100.)

CONNECTIONS AND COLLARS, BASIN, BATH AND SINK.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
Ampinco—American Pin Co., The, Waterbury, Conn.
Barber Mfg. Co., The, Ashtabula, O.
Barnes Mfg. Co., The, Mansfield, O.
Bridgeport Brass Co., Bridgeport, Conn.
Dearborn Brass Co., Cedar Rapids, Ia.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
Detroit Sanitary Supply Co., Detroit, Mich.
Eclipse—Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Elgin Brass Co., New York, N. Y.
Essex Foundry, Newark, N. J.
Exeter Brass Works, Exeter, N. H.
Frost Mfg. Co., The, Kenosha, Wis.
Garrison-Helland Corp., New York, N. Y.
Goetz Brass Co., Chicago, Ill.
Gray Iron Fdry. Co., Reading, Pa.
Imperial Brass Mfg. Co., Chicago, Ill.
Little, M. S., Mfg. Co., Hartford, Conn.
MacDonald, Alex. E., Worcester, Mass.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Modern Iron Works, Quincy, Ill.
Mott, J. L., Iron Works, Trenton, N. J.
Richmond Fdy. & Mfg. Co., Richmond, Va.
Rundle Mfg. Co., Milwaukee, Wis.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Speakman Co., Wilmington, Del.
Sanitary Company of America, Linfield, Pa.
Stringer Bros. Co., Chicago, Ill.
Testite—Groeniger Mfg. Co., Columbus, O.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
United Brass Mfg. Co., Cleveland, O.
Warlo—Ward-Love Pump Corp., Rockford, Ill.
Wiseco—J. B. Wise, Inc., Watertown, N. Y.
Woodward-Wanger Co., Philadelphia, Pa.

CONES FOR SYPHON VALVES.

American Pin Co., Waterbury, Conn.

CONNECTIONS, BASIN, RUBBER.

Auburn Leather Goods Co., Hartford, Conn.
Canfield, H. O., Co., Bridgeport, Conn.
Canfield Rubber Co., The, Bridgeport, Conn.
Goodrich, B. F., Rubber Co., Akron, O.

CONNECTIONS, BATH COCK.

Atkinson Co., Rochester, N. Y.
Bridgeport Brass Co., Bridgeport, Conn.
Capitol Brass Works, Detroit, Mich.
Chicago Faucet Co., Chicago, Ill.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Frost Mfg. Co., Kenosha, Wis.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.

CONNECTIONS, CLOSET, FLOOR.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American Brass Novelty Co., Grand Haven, Mich.
American Foundry & Mfg. Co., St. Louis, Mo.
Ampinco—American Pin Co.,Waterbury, Conn.
Canfield, H. O., Co., Bridgeport, Conn.
Canfield Rubber Co., The, Bridgeport, Conn.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
Exeter Brass Works, Exeter, N. H.
Federal-Huber Co., Chicago, Ill. (Trade names—Watrous Perfection, Watrous Securo.)
Garrison-Helland Corp., New York, N. Y.
Good Mfg. Co., Inc., New York, N. Y.
Goodrich, B. F., Co., The, Akron, O.
Gulf States Pipe Corp., Anniston, Ala.
Ideal (Cast Iron)—Sanitary Company of America, Linfield, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Mott, J. L., Iron Works, Trenton, N. J. (Trade names—Perfect, Sanitary.)
Octopus—Thos. Kelly & Bros., Chicago, Ill.
Queen City—Fries & Co., Buffalo, N. Y.
Sanitary Company of America, Linfield, Pa.
Savill's Patent—Thomas Savill Sons, Philadelphia.
Testite—The Groeniger Mfg. Co., Columbus, O.
Trenton Brass & Machine Co., The, Trenton, N. J.
Webb, F. W., Mfg. Co., Boston, Bass. (Trade names—Webco, Security.)

CONNECTIONS, CORPORATION COCK.

American Foundry & Mfg. Co., St. Louis, Mo.
Barrett—Cleveland Brass Mfg. Co., Cleveland, O.
Exeter Brass Works, Exeter, N. H.
Fries & Co., Buffalo, N. Y.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Mueller Co., Decatur, Ill.
Pioneer Brass Works, Indianapolis, Ind.
Republic Brass Co., Cleveland, O.
Union Brass & Metal Mfg. Co., St. Paul, Minn.

CONNECTIONS, GAS METER.

American Foundry & Mfg. Co., St. Louis, Mo.
Everhart Brass Works, Scranton, Pa.
Fries & Co., Buffalo, N. Y.
Hays Mfg. Co., Erie, Pa.
Jefferson Union Co., Lexington, Mass.
McKee—Eclipse Fuel Engineering Co., Rockford, Ill.
Mueller Co., Decatur, Ill.
Powhatan Brass & Iron Works, Ranson, W. Va.
Standard Meter Co., The, Philadelphia, Pa.

CONNECTIONS, GASOLINE TUBING.

Commonwealth Brass Corp., Detroit, Mich.
Imperial Brass Mfg. Co., Chicago, Ill.

CONNECTIONS, HOSE, BATH COCK.

Durst Mfg. Co., Inc., New York, N. Y. "Dumaco."
Lavelle Rubber Co., Chicago, Ill.

CONNECTIONS, HOSE, TO SMOOTH FAUCETS.

Durst Mfg. Co., The, New York, N. Y.
Economy—Economy Mfg. Co., Philadelphia, Pa.
Jones Mfg. Co., Boston, Mass.
Penberthy—Penberthy Injector Co., Detroit, Mich.
Schlangen Bros. Co., Chicago, Ill.
Star Styrup—Wm. Welsh, Cincinnati, O.

CONNECTIONS, PIPE LINE.

Barco Manufacturing Co., Chicago, Ill.
Dresser—Dresser Mfg. Co., S. R., Bradford, Pa.
Grip—Ware Coupling & Nipple Co., Ware, Mass.
Hammon Coupler Co., The, Mount Vernon, O.
Jefferson Union Co., Lexington, Mass.
M. I. F. Co.—Malleable Iron Fittings Co., Branford, Conn.

CONNECTIONS, PIPE, OFFSET REDUCING.

C.—Crane Co., Chicago, Ill.
Essex Foundry, Newark, N. J.
Illinois Malleable Iron Co., Chicago, Ill.
M. I. W.—Modern Iron Works, Quincy, Ill.

CONNECTIONS, PIPE, SLIP JOINT.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
Ampinco—American Pin Co., Waterbury, Conn.
Bridgeport Brass Co., Bridgeport, Conn.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
Clean Sweep—Detroit Sanitary Supply Co., Detroit, Mich.
Exeter Brass Works, Exeter, N. H.
Frost Mfg. Co., The, Kenosha, Wis.
Haydenville Co., The, Haydenville, Mass.
Kretschmer Mfg. Co., Dubuque, Ia.
Little, M. S., Mfg. Co., Hartford, Conn.
Loyal Brass Co., Cleveland, O.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Mueller Co., Decatur, Ill.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson, Edro, Brass Co., Baltimore, Md.
Street & Kent Mfg. Co., Chicago, Ill.
Ware Coupling & Nipple Co., Ware, Mass.
Wise, J. B., Inc., Watertown, N. Y.

CONNECTIONS, RADIATOR VALVE.

Walworth Company, Boston, Mass.
Yonts C. H., Co., The, Meadville, Pa.

CONNECTIONS, ROOF, DRAINAGE.

American Foundry & Mfg. Co., St. Louis, Mo.
Chicago Pipe Co., Chicago, Ill.
Essex Foundry, Newark, N. J.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
Holt—Barrett Company, The, New York.
Josam Mfg. Co., Michigan City, Ind.
Pittsburgh Valve & Fittings Co., Barberton, O.
Testite—Groeniger Mfg. Co., Columbus, O.

CONNECTIONS, SHOWER TO BATH FAUCET

Auburn Leather Goods Co., Hartford, Conn.
Canfield, H. O., Rubber Co., Bridgeport, Conn.
Canfield Rubber Co., Bridgeport, Conn.
Columbia—Speakman Co., Wilmington, Del.
Edwardsville Brass Works, Edwardsville, Ill.
Empire Tire & Rubber Corp. of New Jersey, Trenton, N. J.
Frank Bros. Mfg. Co., New York, N. Y.
Goetz Brass Co., Chicago, Ill.

Kenney-Cutting Products Corp., New York, N. Y.
Lucky Strike—Lavelle Rubber Co., Chicago, Ill.
Royal Brass Mfg. Co., Cleveland, O.
Street & Kent Mfg. Co., Chicago, Ill.

CONNECTIONS, STANDPIPE, SIAMESE.

Allen Fire Department Supply Co., Providence, R. I.
American Foundry & Mfg. Co., St. Louis, Mo.
Barco Manufacturing Co., Chicago, Ill.
Callahan Co., The Cornelius, Boston, Mass. (hose).
Crane Co., Chicago, Ill.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Fries & Co., Buffalo, N. Y.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Jiffy—The Jiffy Fire Hose Rack Co., New York, N. Y
Josico—John Simmons Co., New York, N. Y.
Ludlow—Ludlow Valve Mfg. Co., Troy, N. Y
Metropolitan—Kennedy Valve Mfg. Co., Elmira, N. Y.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Richardson Brass Co., Edro, Baltimore, Md.
Seattle Brass Co., Seattle, Wash.
Sherman Mfg. Co., H. B., Battle Creek, Mich.
Standard Brass & Iron Works, Milwaukee, Wis.

CONNECTIONS, TUCKER.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Crane Co., Chicago, Ill.
Glenn Mfg. Co., St. Charles, Ill.
Newbury, Jay H., & Son, Goshen, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, O.
Walworth Company, Boston, Mass.

CONNECTIONS, UNION.

(See "Unions.")

CONNECTIONS, URINAL.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
Ampinco—American Pin Co., Waterbury, Conn.
Banner Mfg. Co., New York, N. Y.
Columbus Brass Co., Columbus, O.
Detroit Sanitary Supply Co., Detroit, Mich.
Edwardsville Brass Works, Edwardsville, Ill.
Exeter Brass Works, Exeter, N. H.
Federal-Huber Co., Chicago, Ill.
Frost Mfg. Co., The, Kenosha, Wis.
Haydenville Co., The, Haydenville, Mass.
Little, M. S., Mfg. Co., Hartford, Conn.
Octopus—Thos. Kelly & Bros., Inc., Chicago, Ill.
Powhatan Brass & Iron Works, Ranson, W. Va.
Sherwood Brass Works, Detroit, Mich.
Street & Kent Mfg. Co., Chicago, Ill.
Testite—The Groeniger Mfg. Co., Columbus, O.
Whitlock Coil Pipe Co., The, Hartford, Conn.
Wiseco—J. B. Wise, Inc., Watertown, N. Y.
Woodward-Wanger Co., Philadelphia, Pa.

CONNECTIONS, WASTE, FOR SHOWER AND URINAL STALL.

Hajoca Corporation, Philadelphia, Pa.

CONNECTIONS, WATER BACK

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Atkinson Co., The, Rochester, N. Y.
Exeter Brass Works, Exeter, N. H.
Flannery, P. J., Co., New Britain, Conn.
Fries & Co., Buffalo, N. Y.
Gopher—Union Brass & Metal Mfg. Co., St. Paul, Minn.
Hajoca Corporation, Philadelphia, Pa.
Hamilton, John, Brass Works, Bridgeport, Conn.
Haydenville Co., The, Haydenville, Mass.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Okay—E. Stebbins Mfg. Co., Springfield, Mass.
Peck Bros. & Co., The, New Haven, Conn.
Powhatan Brass & Iron Works, Ranson, W. Va.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Trenton Brass & Machine Co., The, Trenton, N. J.
Union Metal Works, Chelsea, Mass.
United Brass Mfg. Co., Cleveland, O.
Wolff Mfg. Co., Chicago, Ill.

CONNECTIONS, WATER CLOSET.

(See "Connections, Closet, Floor.")

CONNECTIONS, WATER, LEAD FLANGE

Farnan Brass Works, Cleveland, O.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Mueller Co., Decatur, Ill.
Republic Brass Co., Cleveland, O.
Union Water Meter Co., Worcester, Mass.

CONNECTIONS, WATER METER.

American Foundry & Mfg. Co., St. Louis, Mo.
Calhoun—Modern Iron Works, Quincy, Ill.
Everhart Brass Works, Scranton, Pa.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Modern Iron Works, Quincy, Ill.
Pittsburgh Meter Co., Pittsburgh, Pa.
Teksagon—H. W. Clark Co., Mattoon, Ill.
United Brass Mfg. Co., Cleveland, O.

CONSUMERS OR PREVENTERS, SMOKE.

Climax—Climax Smoke Preventer Co., Inc., Boston Mass.
Crown Fuel Saver Co., Richmond, Ind.
Royal—Hart & Crouse Co., Utica, N. Y.

CONTACTORS, BELT.

Wood, T. B., Sons Company, Chambersburg, Pa. "U. G."

CONTROL, DRAFT OR COMBUSTION.

Cash, A. W., Company, Decatur, Ill. "Craig System."
Smoot Engineering Corp'n, New York, N. Y.

CONTROLLERS, DRIP TANK.

McAlear Mfg. Co., Chicago, Ill.

CONTROLLERS, ELECTRIC.

C. H.—Cutler-Hammer Mfg. Co., Milwaukee, Wis.
E. C. & M.—Electric Controller & Mfg. Co., Cleveland, Ohio.
Eck Dynamo & Motor Co., Belleville, N. J.
Electrite—Sundh Electric Co., Newark, N. J.
General Electric Co., The, Schenectady, N. Y.
Hoosier—Flint & Walling Mfg. Co., Kendallville, Ind.
Leader Iron Works, Decatur, Ill.
Lewellen Mfg. Co., Columbus, Ind.
Morgan Engineering Co., Alliance, O.
National—National Utilities Corp., Milwaukee, Wis
Paul—Ft. Wayne Engineering & Mfg. Co., Ft. Wayne, Ind.
Reliance Electric & Engineering Co., Cleveland, O.
Roberts—Geo. J. Roberts Co., Dayton, O.
Trent, Harold E., Company, Philadelphia, Pa.

CONTROLLERS POWER PUMP.

(See Governors, Pump.)

CONTROLLERS, RATE OF FLOW.

Simplex, Venturi—Simplex Valve & Meter Co., Philadelphia, Pa.

CONTROLLERS, TANK WATER LEVEL.

Davis—G. M. Davis Regulator Co., Chicago, Ill.
Fisher Governor Co., Inc., The, Marshalltown, Iowa.
Hydromatic—The Swartwout Co., Cleveland, Ohio
Kelly Controller—Kelly Valve Co., Muskegon, Mich.
Kieley & Muller, New York, N. Y. "Kieley."
Klipfel Mfg. Co., Chicago, Ill.
McAlear Mfg. Co., The, Chicago, Ill.
Northern Equipment Co., Erie, Penna.
Mueller Steam Specialty Co., Inc., New York, N. Y.
Peco—Pittsburgh Engineering Co., Jeannette, Pa.

CONTROLLERS, VALVE.

Martin—E. C. Atkins & Co., Indianapolis, Ind.

CONTROLLER, WATER HEATER.

Simplex Gas Heater Control Co., St. Paul, Minn.
Time-O-Stat—Time-O-Stat Corp., Milwaukee, Wis.

CONTROLLERS, WATER JET.

McAlear Mfg. Co., The, Chicago, Ill.

CONVEYORS, APRON.

Amco—Alvey Mfg. Co., St. Louis, Mo.
Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Freeman-Riff Company, Terre Haute, Ind.
Howe Chain Co., Muskegon, Mich.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Link-Belt Company, Chicago and Philadelphia, Pa.
Palmerbee—Palmer-Bee Co., Detroit, Mich.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill

CONVEYORS, BAGASSE.

Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Link-Belt Co., Chicago and Philadelphia.
Weller Mfg. Co., Chicago, Ill.

CONVEYORS, BELT.

Amco—Alvey Mfg. Co., St. Louis, Mo.
Atlas Engineering Co., Milwaukee, Wis.
Bartlett, C. O., & Snow Co., Cleveland, Ohio.
B-G—Barber-Greene Co., Aurora, Ill.
Buchanan—Buchanan, C. G., Co., Inc., New York.
Caldwell, H. W. & Sons, Co., Chicago, Ill.
Chain Belt Co., Milwaukee, Wis.
Dodge Mfg. Corp., Mishawaka, Ind.
Fairfield Engineering Co., Marion, Ohio.

Farnham Mfg. Co., Buffalo, N. Y.
Freeman-Riff Company, Terre Haute, Ind.
Haslett Chute & Conveyor Co., The, Philadelphia, Pa. (merchandise).
Industrial Supply Co., Keokuk, Ia.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Lamson Co., Syracuse, N. Y.
Link-Belt Company, Chicago and Philadelphia, Pa.
Nordyke & Marmon, Inc., Indianapolis, Ind.
Olson, Samuel, & Co., Chicago, Ill.
Palmberbee—Palmer-Bee Co., Detroit, Mich.
Reliance—Universal Road Machinery Co., Kingston, N. Y.
Robins Conveying Belt Co., New York, N. Y.
S. A.—Stephens-Adamson Mfg. Co., Aurora, Ill.
Scoop Conveyor—Portable Machinery Co., Inc., Passaic, N. J.
Smith Engineering Works, Milwaukee, Wis.
Specialty Engineering Co., Philadelphia, Pa.
Standard Conveyor Co., North St. Paul, Minn.
Stearns Conveyor Co., Cleveland, O.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

CONVEYORS, BRICK.

Barber-Greene Co., Aurora, Ill.
Link-Belt Company, Chicago and Philadelphia.
Palmerbee—Palmer-Bee Co., Detroit, Mich.
Standard Conveyor Co., North St. Paul, Minn
Stephens-Adamson Mfg. Co., Aurora, Ill.
Weller Mfg. Co., Chicago, Ill.

CONVEYORS, BRIDGE.

Link-Belt Company, Chicago and Philadelphia.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Weller Mfg. Co., Chicago, Ill.

CONVEYORS, BUCKET.

Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Link-Belt Co., Chicago and Philadelphia, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Weller Mfg. Co., Chicago, Ill.

CONVEYORS, COAL AND ASH.

Barber-Greene Co., Aurora, Ill.
Beaumont, R. H., Co., Philadelphia, Pa.
Brady Steam Jet—Brady Conveyors Corp., Chicago, Ill.
Cleveland Crane & Engineering Co., Wickliffe, O.
Combustion Engineering Corp., New York. "Combusco," "Coxe," "Frederick," "Green."
Conveyors Corporation of America, Chicago, Ill.
Dodge Mfg. Corp., Mishawaka, Ind.
Dureco—National-Standard Co., Niles, Mich.
The Ernst—Chas. K. Ernst, Buffalo, N. Y.
Fairbanks-Morse & Co., Chicago, Ill.
Gifford-Wood Co., Hudson, N. Y.
Godfrey—The Godfrey Conveyor Co., Elkhart, Ind.
Howe Chain Co., Muskegon, Mich.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Lidgerwood Mfg. Co., New York, N. Y.
Link-Belt Company, Chicago and Philadelphia.
Mead-Morrison Mfg. Co., East Boston, Mass.
Palmerbee—Palmer-Bee Co., Detroit, Mich.
Simplex—United Conveyor Corp., Chicago, Ill.
Specialty Engineering Co., Philadelphia, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Vacuum Ash & Soot Conveyor Co., Newark, N. J.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Yale & Towne Mfg. Co., The, New York, N. Y.

CONVEYORS, FLIGHT.

Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Caldwell, H. W., & Son Co., Chicago, Ill.
Freeman-Riff Company, Terre Haute, Ind.
Link-Belt Company, Chicago and Philadelphia.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Weller Mfg. Co., Chicago, Ill.

CONVEYORS, GRAVEL AND SAND.

Barber-Greene Co., Aurora, Ill.
Howe Chain Co., Muskegon, Mich.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Link-Belt Co., Chicago and Philadelphia, Pa.
Palmerbee—Palmer-Bee Co., Detroit, Mich.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

CONVEYORS OR CARRIERS, GRAVITY.

Amco—Alvey Mfg. Co., St. Louis, Mo.
Gifford-Wood Co., Hudson, N. Y.
Haslett Chute & Conveyor Co., The, Philadelphia, Pa.
Lamson Co., Syracuse, N. Y.
Matthews Gravity Carrier Co., Ellwood City, Pa.
Otis—Otis Elevator Co., New York, N. Y.
Palmerbee—Palmer-Bee Co., Detroit, Mich.
Peck Carrier—Link-Belt Company, Chicago and Philadelphia.
Standard Conveyor Co., North St. Paul, Minn.
Stine, S. B., Osceola Mills, Pa.
Weller Mfg. Co., Chicago, Ill.

CONVEYORS, LUMBER.

Hill-Curtis Co., Kalamazoo, Mich.
Lane Mfg. Co., Montpelier, Vt.
Link-Belt Company, Chicago, Ill.
Wheland Company, The, Chattanooga, Tenn.

CONVEYORS, MERCHANDISE.

Barber-Greene Co., Aurora, Ill.
Gandy—The Gandy Belting Co., Baltimore, Md.
Link-Belt Co., Chicago and Philadelphia.
Myers, F. E., & Bro. Co., Ashland, O.
Palmerbee—Palmer-Bee Co., Detroit, Mich.
Rexall Package Conveyor—Imperial Belting Co., Chicago, Ill.
Standard Conveyor Co., North St. Paul, Minn.
Weller Mfg. Co., Chicago, Ill.

CONVEYORS, OVERHEAD.

(See also "Trolleys and Tracks, Overhead.")
Atlas-Chicago Co., Chicago.
Chisholm-Moore Mfg. Co., Cleveland, O.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Wright Mfg. Co., Lisbon, O.
Yale & Towne Mfg. Co., Stamford, Conn.

CONVEYORS, PNEUMATIC.

Allington & Curtis Mfg. Co., Saginaw, Mich.
Brady Conveyors Corp., Chicago, Ill.
Dust Recovering & Conveying Co., Cleveland, Ohio.
Holly Pneumatic Systems, Inc., New York, N. Y.
Lamson Co., Syracuse, N. Y.
Roots, P. H. & F. M., Co., Connersville, Ind.
Standard Conveyor Co., North St. Paul, Minn.

CONVEYORS, PORTABLE, FOR LOADING CARS, STACKING, ETC.

(See also "Loaders.")
Alvey Mfg. Co., St. Louis, Mo.
Atlas—Atlas Engineering Co., Milwaukee, Wis.
Barber-Greene Co., Aurora, Ill.
Barrett-Cravens Co., Chicago, Ill.
Caldwell, H. W., & Son Co., Chicago, Ill.
Dreadnaught—Seaverns, James B., Co., Chicago, Ill.
Gifford-Wood Co., Hudson, N. Y.
Haiss—Geo. Haiss Mfg. Co., New York, N. Y.
Jeffrey—The Jeffrey Mfg. Co., Columbus, O.
Link-Belt Company, Chicago and Philadelphia, Pa.
Portable Machinery Co., Passaic, N. J.
Robins Conveying Belt Co., New York, N. Y.
Specialty Engineering Co., Philadelphia, Pa.
S-A—Stephens-Adamson Mfg. Co., Aurora, Ill.
Weller Mfg. Co., Chicago, Ill.

CONVEYORS, SAWDUST.

American—American Saw Mill Machinery Co., Hackettstown, N. J.
Caldwell, H. W., & Son Co., Chicago, Ill.
Casey-Hedges Co., The, Chattanooga, Tenn.
Doodle Boy—Cleveland Machinery Co., Cleveland, Tenn.
General Supply & Machine Co., Meridian, Miss.
Hill-Curtis Co., Kalamazoo, Mich.
Howe Chain Co., Muskegon, Mich.
Jeffrey Mfg. Co., Columbus, O.
Lane Mfg. Co., Montpelier, Vt.
Link-Belt Company, Chicago and Philadelphia, Pa.
Raleigh Iron Works Co., Raleigh, N. C.
Scarbrough—Scarbrough Mfg. Co., Chattanooga, Tenn.
Standard Saw Mill Machinery Co., Erie, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wheland Company, The, Chattanooga, Tenn.

CONVEYORS, SCRAPER.

Howe Chain Co., Muskegon, Mich.
Jeffrey Mfg. Co., Columbus, O.
Link-Belt Company, Chicago and Philadelphia, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Willcox Engineering Co., Saginaw, Mich.

CONVEYORS, SCREW OR SPIRAL.

Duriron Co., The, Dayton, O.
Freeman-Riff Company, Terre Haute, Ind.
Helicoid—H. W. Caldwell & Son Co., Chicago, Ill.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Latimer, Robert L., & Co., Philadelphia, Pa.
Link-Belt Company, Chicago and Philadelphia.
Palmerbee—Palmer-Bee Co., Detroit, Mich.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

CONVEYORS, SHEET.

Hollingsworth, Wm., Baltimore, Md.
Link-Belt Company, Chicago and Philadelphia.
Weller Mfg. Co., Chicago, Ill.

CONVEYORS, SLAB.

Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Link-Belt Company, Chicago and Philadelphia.
Weller Mfg. Co., Chicago, Ill.
Wheland—Wheland Co., Chattanooga, Tenn.

CONVEYORS, STEEL BELT.

Sandvik Steel, Inc., New York, N. Y.

CONVEYORS, STEEL PAN.

Caldwell, H. W., & Son Co., Chicago, Ill.
Freeman-Riff Company, Terre Haute, Ind.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Link-Belt Company, Chicago and Philadelphia.
McLanahan-Stone Machine Co., Hollidaysburg, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Weller Mfg. Co., Chicago, Ill.

CONVEYORS, WATER SEAL.

Combustion Engineering Corp., New York, N. Y. "Combusco."

CONVEYORS, WIRE CABLE.

(See also "Tramways, Overhead and Aerial.")
Caldwell, H. W., & Son Co., Chicago, Ill.
Cyclone Red Tag—Cyclone Fence Co., Waukegan, Ill.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Link-Belt Co., Chicago and Philadelphia.
Webster Mfg. Co., Chicago, Ill.

CONVEYORS, WOOD AND LUMBER.

Caldwell, H. W., & Son Co., Chicago, Ill.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Link-Belt Company, Chicago and Philadelphia.
Palmerbee—Palmer-Bee Co., Detroit, Mich.
Standard Conveyor Co., North St. Paul, Minn.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

COOLERS, GENERATOR.

Carrier—Buffalo Forge Co., Buffalo, N. Y.
Webster—Atmospheric Conditioning Corp., Philadelphia, Pa.

COOLERS AND FILTERS, WATER.

Loeber, Henry G., Co., New York, N. Y.

COPPER, RODS, BARS AND SHEETS.

American Smelting & Refining Co., New York, N. Y.
Anaconda—American Brass Co., Waterbury, Conn.
Baltimore Tube Co., Baltimore, Md.
Bridgeport Brass Co., Bridgeport, Conn.
Chase Metal Works, Waterbury, Conn.
Clendenin Bros., Inc., Baltimore, Md.
Cleveland Brass & Copper Mills, Inc., Euclid, O.
Connecticut Brass & Mfg. Corp., Waterbury, Conn.
Dallas Brass & Copper Co., Chicago, Ill.
Detroit Copper & Brass Rolling Mills, Detroit, Mich.
Eagle Brand—Taunton-New Bedford Copper Co. Taunton, Mass.
Hussey, C. G., & Co., Pittsburg, Pa.
New Haven Copper Co., Seymour, Conn.
North American Copper Co., New York, N. Y.
Ohio Brass & Copper Co., The, Cincinnati, O.
Rome Brass & Copper Co., Rome, N. Y.
Seymour Mfg. Co., The, Seymour, Conn.
Stamford Rolling Mills Co., New York.
Star—U. T. Hungerford Brass & Copper Co., New York.

COPPERS AND IRONS, SOLDERING.

Aeroil—Aeroil Burner Co., Union Hill, N. J. (Blow torch type.)
Allen—L. B. Allen Co., Inc., Chicago, Ill.
American Electrical Heater Co., Detroit, Mich.
Baco—Baco Electric Co., Bode, Ia.
Bay State—Harding Mfg. Co., Mansfield, Mass.
Bernz, Otto, Co., Newark, N. J.
Bullock Mfg. Associates, Springfield, Mass.
C. H.—The Cutler-Hammer Mfg. Co., Milwaukee, Wis. (electric.)
Chicago Solder Co., Chicago, Ill.
Clark Gas Soldering Iron—Chicago Well Supply Co. Chicago, Ill.
Clendenin Bros., Inc., Baltimore, Md.
Cork Electric Co., Chicago, Ill.
Decker Mfg. Co., Newark, N. J.
Eagle Brand—Taunton-New Bedford Copper Co. Taunton, Mass.
Everhot Manufacturing Co., Maywood, Ill. (Branding iron and blow torch.)
Gem—Millers Falls Co., Millers Falls, Mass.
General Electric Co., Schenectady, N. Y. (electric).
Hussey, C. G., & Co., Pittsburg, Pa.
Irvington Mfg. Co., Irvington, N. J.
Johnson, Wm., Firm of, Newark, N. J.
Justrite Mfg. Co., Chicago, Ill.
Karas—Karas Electric Co., Chicago, Ill. (gasoline)
Luma Electric Equipment Co., Toledo, O.
Pexto—Peck, Stow & Wilcox Co., Southington, Conn.
Simplex Electric Heating Co., The, Cambridge, Mass.
Smith Welding Equipment Corp., Minneapolis, Minn.
Trent, Harold E., Company, Philadelphia, Pa. (Electric).
Union Hardware Co., Torrington, Conn.
Vulcan Electric Heating Co., New York, N. Y.
Ward Mfg. Co., Chicago, Ill.

COPPERS, SOLDERING, AND BLOW TORCH COMBINED.

Ever-Hot Mfg. Co., Maywood, Ill.

CORD, ELECTRIC TOOL.

Tirex—Simplex Wire & Cable Co., Boston, Mass.

CORD, WICK AND YARN, ASBESTOS.

Allbestos Corporation, Philadelphia, Pa.
Argus Asbestos Co., Inc., Port Chester, N. Y.
Asbestos Fibre Spinning Co., North Wales, Pa.
Johns-Manville Corporation, New York.
Kaltenhaler, H. J., Philadelphia, Pa.
Keasbey & Mattison Co., Ambler, Pa.
Usaco—United States Asbestos Co., Manheim, Pa.
Watson, H. F., Erie, Pa.

CORDAGE, BRAIDED.

American Mfg. Co., Brooklyn, N. Y.
Columbian Tape-Marked—Columbian Rope Co., Auburn, N. Y.
Fischer & Hayes Rope & Steel Co., Chicago, Ill.
Franklin—Franklin Cotton Mill Co., The, Cincinnati, Ohio.
Hoffman-Corr Mfg. Co., Philadelphia, Pa. (cotton).
Hooven & Allison Co., The, Xenia, O.
Kelly, R. A., Company, The, Xenia, O.
Lees Mfg. Co., The, New York, N. Y.
Peerless—Waterbury Co., New York, N. Y.
Plymouth—Plymouth Cordage Co., Plymouth, Mass.
Quaker—The Quaker City Cordage Co., Philadelphia, Pa.
Rauschenberger, John, Co., Milwaukee, Wis. "Badger," "Congo," "Rex."
Red Triangle, Radium, Gibraltar—American Mills Co., Atlanta, Ga.
Samson-Cordage Works, Boston, Mass. (Trade names—Phoenix, Samson.)
Schlichter Jute Cordage Co., Philadelphia, Pa.
Silver Lake Co., Newtonville, Mass. (braided, small). Trade names—Silver Lake, Wearwell.)
St. Louis Cordage Mills, St. Louis, Mo.
Whitlock Cordage Co., New York, N. Y.
Winne & Son, F. W., Philadelphia, Pa.

COTTER PINS AND SPRING KEYS.

Blake & Johnson Co., Waterbury, Conn.
Brooks, M. S., & Sons, Chester, Conn.
Campbell—American Chain Co., Bridgeport, Conn.
Efficiency—The Lamson & Sessions Co., Cleveland, Ohio.
Grammes, L. F., & Sons, Inc., Allentown, Pa.
Hammer Lock—American Chain Co., Inc., Bridgeport, Conn.
Handy Assortment—Heiz & Heiz, New York, N. Y.
Hindley Mfg. Co., Valley Falls, R. I.
Jencks, E., Mfg. Co., Worcester, Mass.
Kelkotter—American Steel Co., Ellwood City, Pa.
McWhorter Mfg. Co., Riverton, N. J.
National Screw & Mfg. Co., Cleveland, O.
Pickering, R. S., Co., Sharon Hill, Pa.
Saco—F. P. Smith & Co., Sharon Hill, Pa.
Washburn Co., The, Wire Goods Co., Div., Worcester, Mass.
Western Wire Products Co., St. Louis, Mo.
Whitaker Mfg. Co., The, Chicago, Ill.

COTTERS, CELLAR BOX.

(See Cotter Pins.)

COTTON, SPUN, CAULKING.

Berkeley Mfg. & Supply Co., Jersey City, N. J.
Bishop, Robert, Mfg. Co., Boston, Mass.
Davey Company, The, Jersey City, N. J.
Estes Mills, Fall River, Mass.
Superior—Stratford, Geo., Oakum Co., Jersey City, N. J.
Winne, Frank W., & Son., Inc., Philadelphia, Pa.

COUNTERBORES.

Chapin-Skelton Corp., Syracuse, N. Y.
Cleveland Twist Drill Co., The, Cleveland, O.
Clough's Improved—R. M. Clough, Meriden, Conn.
Cogsdill Mfg. Co., The, Detroit, Mich.
Connecticut Valley Mfg. Co., The, Centerbrook, Conn.

Gairing, The Tool Co., Inc., Detroit, Mich.
Kendrick & Davis, Lebanon, N. H.
Madison—Madison Mfg. Co., Muskegon, Mich.
Moore & Moore, Inc., Reading, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass
Reliable—Conant & Donelson Co., Conway, Mass.
Scott-Spencer Automatic Tool Co., Cincinnati, O.
Slocomb, J. T., Co., Providence, R. I.
Stanworth Tool Mfg. Co., Inc., Indianapolis, Ind.
Starrett, L. S., Co., Athol, Mass.
Threadwell Tool Co., The, Greenfield, Mass.
Utility—The J. C. Glenzer Co., Detroit, Mich.
Whitman Barnes—Detroit Corp., Detroit, Mich.

COUNTERS AND RECORDERS, REVOLUTION OR OPERATION.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Ashcroft—Ashcroft Mfg. Co., New York, N. Y.
Bristol's—The Bristol Co., Waterbury, Conn.
Durbrow & Hearne Mfg. Co., New York, N. Y.
Federal Gauge Co., Chicago, Ill.
Foxboro Co., Inc., The, Foxboro, Mass.
Grant Mfg. & Machine Co., Bridgeport, Conn
Hart, R. A., Mfg. Co., Battle Creek, Mich.
Lombard Governor Co., The, Ashland, Mass.
Lonergan—J. E. Lonergan Co., Philadelphia, Pa
Marsh & Co., Jas. P., Chicago, Ill.
McDonnell Odometer Co., Chicago, Ill.
Misener & Irving Mfg. Co., Inc., Syracuse, N. Y. "Misener."
National Gauge Co., Brooklyn, N. Y.
The Productimeter, Durant—Durant Mfg. Co., Milwaukee, Wis.
Redington, F. B., Co., Chicago, Ill.
Roco, Bristol, Elm City—The Root Co., Bristol, Conn.
Star—Star Brass Mfg. Co., Boston, Mass.
Tally-Meter Co., Norwich, Conn.
Uehling—Uehling Instrument Co., Passaic, N. J
U. S. Standard—United States Gauge Co., New York, N. Y.
Veeder Mfg. Co., Hartford, Conn.

COUNTERSHAFTS.

Abitz—Rockford Metal Specialty Co., Rockford, Ill.
Athol Machine & Foundry Co., Athol, Mass.
Baird Machine Co., The, Bridgeport, Conn.
B. & O.—Bardons & Oliver, Cleveland, O.
Barry—R. & J. Dick Co., Inc., Passaic, N. J.
Barry—Barry Co., Muscatine, Ia.
Birkie Machine Works, Chicago, Ill. (small)
Brown, A. & F., Co., The, Elizabeth, N. J.
Brown & Sharpe Mfg. Co., Providence, R. I.
Buckeye—Mast, Foos & Co., Springfield, O.
Buffalo Forge Co., Buffalo, N. Y.
Builders' Iron Foundry, Providence, R. I.
Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Chicago Pulley & Shafting Co., Chicago, Ill.
Champion—Champion Blower & Forge Co., Lancaster, Pa.
Coates Clipper Mfg. Co., Worcester, Mass.
Cortland King—Cortland Grinding Wheels Corp Chester, Mass.
Crescent—Columbia Mfg. Co., Belleville, Ill.
Cresson-Morris Co., Philadelphia, Pa.
Crown—Clizbe Bros. Mfg. Co., Plymouth, Ind.
Dill, C. T., Machine Co., Philadelphia, Pa.
Dodge Mfg. Corp., Mishawaka, Ind.
Edgemont Machine Co., Inc., Dayton, O.
Elgin—Elgin Tool Works, Elgin, Ill. (small).
Evans—Evans Friction Cone Co., Newton Centre, Mass.
Falls Clutch & Machinery Co., Kent, Ohio.
Fulton Machine & Forging Co., Canal Fulton, O.
Goodell-Pratt Co., Greenfield, Mass.
Gem—Gem Mfg. Co., Pittsburgh, Pa.
Green River—Greenfield Tap & Die Corp., Greenfield, Mass.
Hannifin Mfg. Co., Chicago, Ill.
Hanson—Hanson Clutch & Machinery Co., Tiffin, O.
Haskins, R. G., Co., Chicago, Ill. (for flexible shaft grinders).
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Holmes, E. & B., Machinery Co., Buffalo, N. Y.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Huntsville Foundry & Machine Co., Huntsville, Ala.
Kerrihard Co., The, Red Oak, Ia.
Le Blond, R. K., Machine Tool Co., Cincinnati, O.
McMahon & Co., Worcester, Mass. (Reversing).
Medart Company, The, St. Louis, Mo.
Niles-Bement-Pond Co., New York, N. Y.
Partridge—E. O. Partridge, Chicago, Ill.
Royersford Foundry & Machine Co., Royersford, Pa.
Simplex, Sim-pull—Rhode Island Warp Stop Equipment Co., Pawtucket, R. I.
Smith, Winfield H., Springville, Erie Co., N. Y. (small.)
Springfield Mfg. Co., The, Bridgeport, Conn.
Standard Pressed Steel Co., Jenkintown, Pa. (Trade names—Bantam, Hallowell, Pioneer.)
Standard (Baechle Pattern)—The Standard Pulley Co., Cincinnati, O.
Sterling—Sterling Grinding Wheel Co., Cleveland, O.
Stow Mfg. Co., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill. (small.)
Wood, T. B., Sons Company, Chambersburg, Pa.

COUNTERSINKS.

Bay State—Bay State Tap & Die Co., Mansfield, Mass.
Boker, H., & Co., Inc., New York, N. Y.
Buck Bros., Millbury, Mass.
Buffum Tool Co., Louisiana, Mo.
W. C. Carver—Carver Tool Works, Spring Valley, N. Y.
Celfor—Clark Equipment Co., Buchanan, Mich.
Cleveland Twist Drill Co., The, Cleveland, O.
Cogsdill Mfg. Co., The, Detroit, Mich.
Crescent—Crescent Co., Inc., The, Meriden, Conn.
Dasco—Damascus Steel Products Co., Rockford, Ill.
Eclipse Interchangeable Counterbore Company, Detroit, Mich.
Elmore—The Chapin-Stephens Co., Pine Meadow, Conn.
G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.
Goodell-Pratt Co., Greenfield, Mass.
Hargrave—The Cincinnati Tool Co., Cincinnati, O.
Irvington Mfg. Co., Irvington, N. J.
Jennings, C. E., & Co., New York, N. Y.
Kendrick & Davis, Lebanon, N. H.
Kilborn & Bishop Co., New Haven, Conn
Mayhew Steel Products, Inc., New York, N. Y.
Moore & Moore, Inc., Reading, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Tool Co., New York, N. Y.
Scott-Spencer Automatic Tool Co., The, Cincinnati, Ohio.
Smith's—Otis A. Smith Mfg. Co., Rockfall, Conn.
Stanworth Tool Mfg. Co., Inc., Indianapolis, Ind.
Star Bit & Tool Co., Rockford, Ill.
Starrett, L. S., Co., Athol, Mass.
Stearns & Co., E. C., Syracuse, N. Y.
Tuck—Tuck Mfg. Co., Brockton, Mass.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Whitman Barnes-Detroit Corp., Detroit, Mich.
Yankee—North Bros. Mfg. Co., Philadelphia, Pa.

COUPLINGS, CASING.

Cressman, N. G., Co., Philadelphia, Pa.
Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.
Kleinman, Russell F., Philadelphia, Pa.
Monarch Mfg. & Supply Co., St. Louis, Mo.

COUPLINGS, COPPER TUBE.

Parker Appliance Co., The, Cleveland, Ohio.

COUPLINGS, DRILL PIPE.

Cressman, N. G., Co., Philadelphia, Pa.
Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.
Lutz Company, Inc., Philadelphia, Pa.

COUPLINGS, FOR FLEXIBLE METAL HOSE.

"Holdol"—C. A. Claflin Co., Boston, Mass.
Mars—Mars Co., Aurora, Ill.
Mulconroy Co., Inc., Philadelphia, Pa. "Mulconroy."

COUPLINGS, GAS AND OIL LINE.

Cressman, N. G., Co., Philadelphia, Pa.
Custer—Custer Coupling Co., Bradford, Pa.
Dayton Pipe Coupling Co., Dayton, O.
Hammon Coupler Co., Mount Vernon, O.
Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.
Keystone Coupling Co., Pittsburgh, Pa.

COUPLINGS, HOSE, ACID.

Automatic, Navy, Underwriters—Elkhart Brass Mfg. Co., Elkhart, Ind.

COUPLINGS, HOSE, AIR AND GAS.

(See also "Fittings, Hose.")

Advance Hose Mfg. Co., Philadelphia, Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
Boss—Dixon Valve & Coupling Co., Philadelphia, Pa
Callahan Co., The Cornelius, Boston, Mass.
Chicago Pneumatic Tool Co., New York, N. Y. "Chicago."
Cleveland Rock Drill Co., The, Cleveland, Ohio.
Curtis—Curtis & Co. Mfg. Co., St. Louis, Mo.
Dallett—Dallett Co., Philadelphia, Pa.
Dayton Pneumatic Tool Co., The, Dayton, O.
Eastman Mfg. Co., Manitowoc, Wis.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Eureka, Reliable—The Rauch Mfg. Co., Galena, Kan.
Exeter Brass Works, Exeter, N. H.
General Brass Company, Detroit, Mich.
Goodall Rubber Co., Inc., Philadelphia, Pa.

Goodrich Co., The B. F., Akron, O.
Independent Pneumatic Tool Co., Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.

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Joy—H. D. Edwards & Co., Detroit, Mich.
King—Dixon Valve & Coupling Co., Philadelphia, Pa.
Knox—Knox Mfg. Co., Inc., Philadelphia, Pa.
Lunkenheimer Co., Cincinnati, O.
Medina Stamping & Machine Co., Inc., Medina, N. Y.
Milburn, Alexander, Co., The, Baltimore, Md.
Morton Mfg. Co., Muskegon Heights, Mich. "Robinson's."
Mulconroy Co., Inc., Philadelphia, Pa. "Mulconroy."
National—Mann Corporation, Kankakee, Ill.
Powell Co., The Wm., Cincinnati, O.
Push & Turn—C. A. Claflin Co., Boston, Mass.
Quick-as-Wink—C. B. Hunt & Son, Salem, O.
Romort—Romort Mfg. Co., Oakfield, Wis.
Schlangen Bros. Co., Chicago, Ill.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
Walworth Company, Boston, Mass.

COUPLINGS, HOSE, LEVER LOCK

Barrett—The Cleveland Brass Mfg. Co., Cleveland, O.

COUPLINGS, HOSE, PUSH.

Richardson, Edro, Brass Co., Baltimore, Md.

COUPLINGS, HOSE (STEAM).

Advance Hose Mfg. Co., Philadelphia, Pa. (Trade names—Advance, Holdtite.)
American Foundry & Mfg. Co., St. Louis, Mo.
Allen, W. D., Mfg. Co., Chicago, Ill.
Boss—Dixon Valve & Coupling Co., Philadelphia.
Clincher—Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.
Crane Company, Chicago, Ill.
Diamond Rubber Co., Inc., The, Akron, O.
Dixon Valve & Coupling Co., Philadelphia, Pa.
Eastman Mfg. Co., Manitowoc, Wis.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Fries & Co., Buffalo, N. Y.
Gold Car Heating & Lighting Co., Brooklyn, N. Y.
Goodrich Co., The B. F., Akron, O.
Haydenville Co., The, Haydenville, Mass.
King—Dixon Valve & Coupling Co., Philadelphia, Pa.
Knox—Knox Mfg. Co., Inc., Philadelphia, Pa.
Medina Stamping & Machine Co., Inc., Medina, N. Y.
Morse—Cornelius Callahan Co., Boston, Mass.
Mulconroy Co., Inc., Philadelphia, Pa. "Mulconroy."
Nob-Lok—C. A. Claflin Co., Boston, Mass.
Nunn Brass Works, Rochester, N. Y.
Powell Co., The Wm., Cincinnati, O.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Quick-as-Wink—C. B. Hunt & Sons, Salem, O.
Reliable, Eureka—The Rauch Mfg. Co., Galena, Kan.
Schlangen Bros. Co., Chicago, Ill.
Seattle Brass Co., Seattle, Wash.
Sherman—H. B. Sherman Mfg. Co., Battle Creek, Mich.
Sherwood Mfg. Co., Buffalo, N. Y.
Street & Kent Mfg. Co., Chicago, Ill.
Strong, Carlisle & Hammond Co., Cleveland, O.
Sure Hold—Claflin Co., C. A., Boston, Mass.

COUPLINGS, HOSE (WATER).

Allen Mfg. Co., W. D., Chicago, Ill.
American Brass & Copper Co., The, New York, N. Y.
American Foundry & Mfg. Co., St. Louis, Mo.
Automatic—H. B. Sherman Mfg. Co., Battle Creek, Mich.
Bernz, Otto, Co., Newark, N. J.
Bliss—Acheson Mfg. Co., Rankin, Braddock P. O. Pa.
Boston Coupling Co., Boston, Mass.
Cowan, Elkhart—Elkhart Brass Mfg. Co., Elkhart, Ind.
Crane Co., Chicago, Ill.
Dallett—Dallett Co., Philadelphia, Pa.
Diamond Rubber Co., Inc., The, Akron, O.
Dixon Valve & Coupling Co., Philadelphia, Pa.
Eastman Mfg. Co., Manitowoc, Wis.
Feyh—Callahan, Cornelius, Co., The, Boston, Mass.
Feyh—Farnan Brass Works, Cleveland, O.
Fries & Co., Buffalo, N. Y.
Garratt & Co., W. T., San Francisco, Cal.
Gaylord—The Allen Fire Department Supply Co., Providence, R. I.
Gaylord—Callahan Co., The Cornelius, Boston, Mass.
General Fire Extinguisher Co., Providence, R. I.
Gilmore—The Allen Fire Department Supply Co., The, Providence, R. I.
Gilmore—Union Brass & Metal Mfg. Co., St. Paul.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Hoffmann Mfg. Co., B., Milwaukee, Wis.
Jiffy—The Jiffy Fire Hose Rack Co., New York, N. Y.
Johnson—Johnson Service Co., Milwaukee, Wis.
Jones—Allen Fire Department Supply Co., Providence, R. I.
Jones—Hamilton Rubber Mfg. Co., Trenton, N. J.
Jost's Sons, Edmund, Newark, N. J.
Kalamazoo—Riverside Foundry & Galvanizing Co., Kalamazoo, Mich.
Kennedy, Wm. H., & Sons, Co., Chicago, Ill.
King—Dixon Valve & Coupling Co., Philadelphia, Pa.
Kinsey & Mahler Co., Peoria, Ill.
Larkin—Larkin Mfg. Co., Dayton, O.
Marcus Iron Works, Peoria, Ill.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Mechanical Rubber Co., The, Cleveland, Ohio.
Medina Stamping & Machine Co., Inc., Medina, N. Y.
Mill—H. B. Sherman Mfg. Co., Battle Creek, Mich.
Morgan Mfg. Co., Inc., Keene, N. H.
Morse—Callahan Co., The Cornelius, Boston, Mass.
Mulconroy—Mulconroy Co., Inc., Philadelphia, Pa.
Navy—Elkhart Brass Mfg. Co., Elkhart, Ind.
Nelson, L. R., Mfg. Co., Peoria, Ill. (Trade names—Corrugated, Perfect Clinching, Snap.)
Niedner's Sons Co., Chas., Malden, Mass.
Nunn Brass Works, Rochester, N. Y.
Perkes, Chas., Co., Philadelphia, Pa.
Pioneer Brass Works, Indianapolis, Ind.
Powell Co., The Wm., Cincinnati, O.
Powhatan Brass & Iron Works, Ranson, W. Va.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Quick-as-Wink—C. B. Hunt & Son, Salem, O.
Safety Fire Extinguisher Co., The, New York, N. Y.
Safety—Sherwood Mfg. Co., Buffalo, N. Y.
Sargent—Ingersoll-Rand Co., New York, N. Y.
Schlangen Bros. Co., Chicago, Ill.
Schrader's Sons, Inc., A., Brooklyn, N. Y.
Seattle Brass Co., Seattle, Wash. (expansion ring).
Sherman—H. B. Sherman Mfg. Co., Battle Creek, Mich.
Simmons Co., John, New York, N. Y (expansion ring)
Street & Kent Mfg. Co., Chicago, Ill.
Standard Brass & Iron Works, Milwaukee, Wis.
Stebbins, E., Mfg. Co., Springfield, Mass.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
Universal—The Allen Fire Department Supply Co., Providence, R. I.
Universal—Callahan Co., The Cornelius, Boston, Mass.
Walworth Company, Boston, Mass.
Waterbury Brass Goods Corp., Waterbury, Conn.
Waterbury Mfg. Co., Waterbury, Conn.
Wolf—Boston Woven Hose & Rubber Co., Boston, Mass.
Woodhouse Mfg. Co., The, New York, N. Y.

COUPLINGS, MOTOR.

Birkle Machine Works, Chicago, Ill.

COUPLINGS, PIPE, BRASS

Abbott—The Columbus Brass Co., Columbus, O.
Acheson Mfg. Co., Rankin, Braddock P. O. Pa.
Bliss—Farnan Brass Works, Cleveland, O.
Commonwealth Brass Corp., Detroit, Mich.
Exeter Brass Works, Exeter, N. H.
General Brass Company, Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Imperial Brass Mfg. Co., Chicago, Ill.
Jones—Farnan Brass Works, Cleveland, O.
Keystone Coupling Co., Pittsburgh, Pa.
New Haven Screw Co., New Haven, Conn.
Parker Appliance Co., The, Cleveland, O.
Perkins, H. K., Co., The, Taunton, Mass.
Pittsburg Brass Mfg. Co., Pittsburg, Pa.
Pittsburg Valve & Fittings Co., Barberton, O.
Powell, Wm. Co., The, Cincinnati, O.
Richardson Brass Co., Edro, Baltimore, Md.
Royal Brass Mfg. Co., Cleveland, Ohio.
Salem Brass & Iron Mfg. Co., Bridgeton, N. J.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Company, Boston, Mass.
Wise, J. B., Inc., Watertown, N. Y.

COUPLINGS, PIPE, CAST IRON.

Central Tube Co., Pittsburg, Pa. (black and gal.)
Crane Co., Chicago, Ill.
Howard Iron Works, Buffalo, N. Y.
K—Kuhns Bros., Dayton, O.
Walworth Company, Boston, Mass.

COUPLINGS, PIPE, EXTRA HEAVY.

Atkins, H. C., Mfg. Co., St. Louis, Mo.
A. & J. Mfg. Co., The, Chicago, Ill.
Cressman, N. G., Co., Philadelphia, Pa.
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Kleinman, Russell F., Philadelphia, Pa.
Walworth Company, Boston, Mass.

COUPLINGS, PIPE, FLEXIBLE.

Boston Gear Works Sales Co., Norfolk Downs, Mass.
Flexo Supply Co., St. Louis, Mo.
Moran Flexible Steam Joint Co., Louisville, Ky.
Thomas Coupling Co., Troy, Pa.
Thomas Flexible Coupling Co., Warren, Pa.
Vitaulic Company of America, New York, N. Y.
White Auto-Tite, Universal—International Couplers Co., Pittsburgh, Pa.

COUPLINGS, PIPE, HIGH PRESSURE.

Hydraulic Press Mfg. Co., The, Columbus, O. "H. P. M."

COUPLINGS, PIPE, MALLEABLE IRON.

(See also "Fittings" and "Unions, Malleable Iron.")
A. & J. Mfg. Co., The, Chicago, Ill.
Atkins, H. C., Mfg. Co., St. Louis, Mo.
Chicago Nipple Mfg. Co., Chicago, Ill.
Cressman, N. G., Co., Philadelphia, Pa.
Grip—Ware Coupling & Nipple Co., Ware, Mass.
Illinois Malleable Iron Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
Keystone Coupling Co., Pittsburgh, Pa.
Pittsburg Valve & Fittings Co., Barberton, O.
Walworth Company, Boston, Mass.

COUPLINGS, PIPE, REDUCING.

Detroit—Detroit Brass & Malleable Works, Detroit.
K—Kuhns Bros., Dayton, O.
Keystone Coupling Co., Pittsburgh, Pa.
Modern Iron Works, Quincy, Ill.
Walworth Company, Boston, Mass.

COUPLINGS, PIPE, REPAIR.

Dayton Pipe Coupling Co., Dayton, Ohio.
Queen City—Fries & Co., Buffalo, N. Y.

COUPLINGS, PIPE, WROUGHT IRON AND STEEL.

A. & J. Mfg. Co., The, Chicago, Ill.
Atkins, H. C., Mfg. Co., St. Louis, Mo.
Byers, A. M., Co., Pittsburgh, Pa.
Cohoes Rolling Mills Co., Cohoes, N. Y.

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Gwilliam Mfg. Corp., Philadelphia, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Keystone Coupling Co., Pittsburgh, Pa.
Kleinman, Russell F., Philadelphia, Pa.
New Haven Screw Co., The, New Haven, Conn.
Reidy Machine Screw Co., New Haven, Conn.
Republic Pipe & Iron Corp., Brooklyn, N. Y.
Walworth Company, Boston, Mass.
Wheeling Machine Products Co., Wheeling, W. Va.
Youngstown—Youngstown Sheet & Tube Co., The Youngstown, O.

COUPLINGS, PUMP ROD.

Cook, A. D., Inc., Lawrenceburg, Ind.
Cressman, N. G., Co., Philadelphia, Pa.
Deming Co., Salem, O.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Imico—Illinois Malleable Iron Co., Chicago, Ill.
Red Jacket Mfg. Co., Davenport, Ia.
Walworth Company, Boston, Mass.
Youngstown Sheet & Tube Works, Youngstown, O.

COUPLINGS, RANGE BOILER.

(See "Fittings, Range Boiler.")

COUPLINGS, ROPE DRIVE.

Hunt, C. W., Co., Inc., West New Brighton, N. Y.

COUPLINGS, SEWER ROD.

Coleman, Allan J., Chicago, Ill.
Felton—Waldo Bros. & Bond Co., Boston, Mass.
Illinois Malleable Iron Co., Chicago, Ill.

COUPLINGS, SHAFT, COMPRESSION.

Barry—R. & J. Dick Co., Inc., Passaic, N. J.
Brown, A. & F., Co., The, Elizabethport, N. J.
Caldwell, H. W., & Son Co., Chicago, Ill.
Dodge Mfg. Corp., Mishawaka, Ind. "Dodge," "Dodge-Collins."
Hanson Clutch & Machinery Co., Tiffin, Ohio.
Hilliard Corporation, Elmira, N. Y.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hilliard Corporation, Elmira, N. Y.
Hunter—James Hunter Machine Co., North Adams, Mass.

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Royersford Foundry & Machine Co., Royersford, Pa.
Sellers, William & Co., Inc., Philadelphia, Pa.
Spiro—Bond Foundry & Machine Co., Manheim, Pa.
Standco—Standard Pressed Steel Co., Jenkintown, Pa.
Tranter Mfg. Co., Pittsburgh, Pa.
Valley, Hendershot—Valley Iron Works, Williamsport, Pa.
Weller Mfg. Co., Chicago, Ill.
Wood, T. B., Sons Company, Chambersburg, Pa.

COUPLINGS, SHAFT, CUT-OFF AND FRICTION CLUTCH.

Brown, A. & F., Co., The, Elizabethport, N. J.
Caldwell, H. W., & Son Co., Chicago, Ill.
Chicago Pulley & Shafting Co., Chicago, Ill.
Constant XX Century Corp., Bloomington, Ill.
Conway—The Conway Clutch Co., Cincinnati, O.
Cresson-Morris Co., Philadelphia, Pa.
Crowell—Valley Iron Works, Williamsport, Pa.
Dodge Mfg. Corp., Mishawaka, Ind.
Edgemont—The Edgemont Machine Co., Dayton, O.
Erie Clutch & Pulley Co., Erie, Pa.
Fairbanks, Morse & Co., Chicago, Ill.
Falls—Falls Clutch & Machinery Co., Kent, Ohio.
Giant—The Brown Clutch Co., Sandusky, O.
Hanson—Hanson Clutch & Machinery Co., The, Tiffin, O.
Hill (Smith Type)—The Hill Clutch Machine & Foundry Co., Cleveland, O.
Hill, Hub, Worrall—American Tool & Machine Co., Boston, Mass.
Hilliard Corporation, Elmira, N. Y.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Hunter Machine Co., James, North Adams, Mass.
Huntsville Foundry & Machine Co., Huntsville, Ala.
I. X. L.—Foote Bros. Gear & Machine Co., Chicago, Ill.
Interchange, Worrall—Kinney Mfg. Co., Boston, Mass.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
J. & L.—Jones & Laughlin Steel Co., Pittsburgh, Pa.
Kinney—Kinney Mfg. Co., Boston, Mass.
Link-Belt Company, Chicago and Philadelphia.
Lemley—W. A. Jones Foundry & Machine Co., Chicago, Ill.
List, E. J., Mfg. Co., Havana, Ill.
McMahon & Co., Worcester, Mass.
Medart Company, The, St. Louis, Mo.
Moore & White Co., The, Philadelphia, Pa.
Mule-Pull—Brown Engineering Co., Reading, Pa.
Naylor Bros., Peekskill, N. Y.
Nordyke & Marmon, Inc., Indianapolis, Ind.
O. K.—O. K. Clutch & Machinery Co., Columbia, Pa.
Peerless—Essmueller Mill Furnishing Co., St. Louis, Mo.
Schultz, A. L., & Son, Chicago, Ill.
Sinclair-Scott Co., The, Baltimore, Md.
Star—Carl G. Westlund Co., Worcester, Mass.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Wolf Co., The, Chambersburg, Pa.
Wood, T. B., Sons Co., Chambersburg, Pa. "Universal Giant."

COUPLINGS, SHAFT, FLANGE OR PLATE.

Barry—R. & J. Dick Co., Inc., Passaic, N. J.
Barry—Barry Co., Muscatine, Ia.
Bliss & Laughlin, Inc., Harvey, Ill.
Bond Foundry & Machine Co., Manheim, Pa.
Brightman Machine Co., The, Cleveland, O.
Brown, A. & F., Co., The, Elizabethport, N. J.
Caldwell, H. W., & Son Co., Chicago, Ill.
Canton Foundry & Machine Co., The, Canton, O.
Chicago Pulley & Shafting Co., Chicago, Ill.
Clark Flexible—I. H. Dexter Co., Inc., Goshen, N. Y.
Constant XX Century Corp., Bloomington, Ill.
Cresson-Morris Co., Philadelphia, Pa.
Dodge Mfg. Corp., Mishawaka, Ind. "Dodge," "Ribbed," "Grim Death."
Dow, L. B. Inc., Keene, N. H.
Eastwood Co., Benjamin, Paterson, N. J.
Erie Clutch & Pulley Co., Erie, Pa.
Falls—Falls Clutch & Machinery Co., Kent, Ohio.
Golden's Foundry & Machine Co., Columbus, Ga.
Great Western Mfg. Co., Leavenworth, Kas.
Hanson Clutch & Machinery Co., Tiffin, O.
Hendershot—Valley Iron Works, Williamsport, Pa
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hilliard—Hilliard Corporation, Elmira, N. Y.
Howard Iron Works, Buffalo, N. Y.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Huntsville Foundry & Machine Co., Huntsville, Ala.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
J. & L.—Jones & Laughlin Steel Co., Pittsburg, Pa
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Keystone—Keystone Pulley Co., Oneida, N. Y.
LeValley—Chain Belt Co., Milwaukee, Wis.
Link-Belt Company, Chicago and Philadelphia.
List, E. J., Mfg. Co., Havana, Ill.
Medart Company, The, St. Louis, Mo.
Mule-Pull—Brown Engineering Co., Reading, Pa.
National—National Foundry & Mfg. Co., Williamsport, Pa.
Naylor Bros., Peekskill, N. Y.
Nicholson—W. H. Nicholson & Co., Wilkesbarre, Pa.
Nordyke & Marmon, Inc., Indianapolis, Ind.
Pintite—Smith & Serrell Co., Newark, N. J.
Prescott Co., The, Menominee, Mich.
Royersford Foundry & Machine Co., Royersford, Pa.
Sellers, Williams & Co., Inc., Philadelphia, Pa.
Shaw—American Tool & Machine Co., Boston, Mass.
Standco—Standard Pressed Steel Co., Jenkintown, Pa.
Townsend Furnace & Machine Co., Albany, N. Y.
Tranter—Tranter Mfg. Co., Pittsburgh, Pa.
Valley Iron Works, Williamsport, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wheland—Wheland Co., Chattanooga, Tenn.
Wolf Co., The, Chambersburg, Pa.
Wood's Universal Giant—T. B. Wood Sons Company, Chambersburg, Pa.
Worall—American Tool & Machine Co., Boston, Mass.

COUPLINGS, SHAFT, FLEXIBLE.

Ajax—Ajax Flexible Coupling Co., Westfield, N. Y.
Aldrich—Aldrich Pump Co., The, Allentown, Pa.
Bartlett—G. M. Bartlett, Indianapolis, Ind.
Birkle Machine Works, Chicago, Ill.
Bond Foundry & Machine Co., Manheim, Pa.
Brown, A. & F., Co., The, Elizabethport, N. J.
Bruce-Macbeth—Bruce-Macbeth Engine Co., Cleveland, O.
Chicago Die Casting Mfg. Co., Chicago, Ill. (small pulleys).
Chicago Pulley & Shafting Co., Chicago, Ill.
Clark Flexible—I. H. Dexter Co., Inc., Goshen, New York.
Clark, C. H., New York, N. Y. "Cinchon."
Climax Motor Devices Co., Chagrin Falls, O.
Cooper—Cooper Flexible Transmission Co., Inc. Brooklyn, N. Y.
Cresson-Morris Co., Philadelphia, Pa.
Cutler—B. F. Sturtevant Co., Boston, Mass.
Cutler-Hammer Mfg. Co., Milwaukee, Wis.
De Laval Steam Turbine Co., Trenton, N. J.
Dexter—I. H. Dexter Co., Inc., Goshen, N. Y.
Dodge Mfg. Co., Mishawaka, Ind. "Dodge."
Falk-Bibby—The Falk Corp., Milwaukee, Wis.
Falls—Falls Clutch & Machinery Co., Kent, O.
Fast—The Bartlett-Hayward Co., Baltimore, Md.
Fawcus—Fawcus Machine Co., Pittsburgh, Pa.
Flexo—Lloyd Engineering Co., Montclair, N. J.
Francke—Smith & Serrell, Newark, N. J.
General Electric Co., Schenectady, N. Y.
Greene, Schaw & Schaw, West Berkeley, Cal.
Grundy, Mather—Charles Bond Co., Philadelphia, Pa.
Hanson Clutch & Machinery Co., Tiffin, O.
Higgins—The Tomkins-Johnson Co., Jackson, Mich.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Huron Industries, Inc., Detroit, Mich. "Bull Dog."
Jeffrey Mfg. Co., Columbus, O.
Jones—W. A. Jones Foundry & Machine Co., Chicago, Ill.
Kanti-Lever—Brown Engineering Co., Reading, Pa.
Lindahl, Henry, Machine Co., Chicago, Ill.
Medart Company, The, St. Louis, Mo.
Meriam Cork-in-Good—The Meriam Co., Cleveland, Ohio.
Nuttall, R. D., Co., Pittsburgh, Pa.
Palmer-Bee Co., Detroit, Mich.
Roots, P. H. & F. M., Co., Connersville, Ind.
Smith Power Transmission Co., Cleveland, Ohio. "Flexoid."
Stephenson Quill—Westinghouse Machine & Mfg. Co., Pittsburgh, Pa.
Thermoid—Thermoid Rubber Co., Trenton, N. J.
Tilting Bar—The American Foundry & Mfg. Co., Frederick, Md.
Uniflex—Valley Iron Works, Williamsport, Pa.
Whitney—The H. & O. Chain Co., South Norwalk, Conn.
Wood, T. B., Sons Company, Chambersburg, Pa.

COUPLINGS, SHAFT, JAW CLUTCH.

American Tool & Machine Co., Boston, Mass.
Brown, A. & F., Co., The, Elizabethport, N. J.
Caldwell, H. W., & Son Co., Chicago, Ill.
Chicago Pulley & Shafting Co., Chicago, Ill.
Constant XX Century Corp., Bloomington, Ill.
Cresson-Morris Co., Philadelphia, Pa.
Dodge Mfg. Corp., Mishawaka, Ind. "Dodge."
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hendershot—Valley Iron Works, Williamsport, Pa.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Jones—W. A. Jones Foundry & Machine Co., Chicago, Ill.

Link-Belt Company, Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
Naylor Bros., Peekskill, N. Y.
Nordyke & Marmon, Inc., Indianapolis, Ind.
Royersford Foundry & Machine Co., Royersford, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood, T. B., Sons Company, Chambersburg, Pa.

COUPLINGS, SHAFT, UNIVERSAL JOINT.

Brown, A. & F., Co., The, Elizabethport, N. J.
Medart Company, The, St. Louis, Mo.
Webster Mfg. Co., Chicago, Ill.
Wood, T. B. Sons Company, Chambersburg, Pa.

COUPLINGS, SOLDERING.

Commonwealth Brass Corp., Detroit, Mich.
Exeter Brass Works, Exeter, N. H.
Fries & Co., Buffalo, N. Y.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Mueller Co., Decatur, Ill.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Union Water Meter Co., Worcester, Mass.
Walworth Company, Boston, Mass.

COUPLINGS, TANK, WELDING.

Meco—Modern Engineering Co., St. Louis, Mo.

COUPLINGS, VENT.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Eclipse—John C. Kupferle Foundry Co., St. Louis, Mo.
Exeter Brass Works, Exeter, N. H.
Fries & Co., Buffalo, N. Y.
Frost Mfg. Co., Kenosha, Wis.
Hamilton, John, Brass Works, Bridgeport, Conn.
Haydenville Co., The, Haydenville, Mass.
Newbury Mfg. Co., Monroe, N. Y.
Street & Kent Mfg. Co., Chicago, Ill.

COUPLINGS, WATER METER.

Chapman Valve Mfg. Co., Indian Orchard, Mass.
Crispin—Multiplex Mfg. Co., Berwick, Pa.
Ford (adjustable)—Ford Meter Box Co., Wabash Ind.
Fries & Co., Buffalo, N. Y.
Hays Mfg. Co., Erie, Pa.
Richter Brass Co., The, Cincinnati, O.
Teksagon—Clark, H. W., Co., Mattoon, Ill.

COVERS, BATH TUB.

Nilson Protecto—Flat Metal Mfg. Co., Chicago, Ill.

COVERS, CATCH BASIN AND CISTERN.

Adams Co., The, Dubuque, Ia.
Alabama Pipe Co., Anniston, Ala.
American Foundry & Mfg. Co., St. Louis, Mo.
Barber Mfg. Co., The, Ashtabula, O.
Barnes Mfg. Co., Mansfield, O.
Blake Specialty Co., Rock Island, Ill.
Boosey—Greenwood Mfg. Co., Detroit, Mich.
Canton Foundry & Machine Co., Canton, O.
Chicago Granitine Mfg. Co., Chicago, Ill. (Artificial stone.)
Chicago Pipe Co., Chicago, Ill.
Clark Co., H. W., Mattoon, Ill.
Clow & Sons, Jas. B., Chicago, Ill.
Duplex Mfg. & Foundry Co., Elyria, O.
Elkhart Iron Works, Elkhart, Ind.
Glenn Mfg. Co., St. Charles, Ill.
Guenther Foundry, Columbus, O.
Gulf States Pipe Corp., Anniston, Ala.
Hajoca Corporation, Philadelphia, Pa.
Hammond Iron Co., Birmingham, Ala.
Imico—Illinois Malleable Iron Co., Chicago, Ill.
Kalamazoo Foundry & Machine Co., Kalamazoo, Mich.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Milford Iron Foundry Co., Milford, Mass.
M.I.W.—Modern Iron Works, Quincy, Ill.
Reading Foundry & Supply Co., Reading, Pa.
Richmond Foundry & Mfg. Co., Richmond, Va.
Smith-Matthews Foundry, Detroit, Mich.
Swett, A. L., Iron Works, Medina, N. Y.
Wade Iron Sanitary Mfg. Co., Chicago, Ill.
Wesely Co., Chas., Chicago, Ill. (Concrete.)
Wolverine Foundry Co., Detroit, Mich.

COVERING, ASBESTOS, AND MAGNESIA, PIPE AND BOILER.

(See also "Cement, Asbestos and Magnesia for Boilers and Furnaces.")

Acme Asbestos Covering & Flooring Co., Chicago, Ill. (Trade names—Acme Asbestos, Climax, Triumph, Victor, Yukon.)
Ambler, Asbestos—Keasbey & Mattison Co., Ambler, Pa.
American Seal—The William Connors Paint Mfg. Co., Troy, N. Y.
Armstrong Cork & Insulation Co., Pittsburgh, Pa.
Asbestos Products Co., Chicago, Ill.
Brower, Charles R., & Co., Seattle, Wash.
Carey—The Philip Carey Co., Cincinnati, O.
Chicago Asbestos Mfg. Co., Chicago, Ill.
Coal Savers—R. E. Kramig & Co., Cincinnati, Ohio.
Crawford, L. M., Denver, Colo.
Duplex—Albion Mfg. Co., Seattle, Wash.
Durabestos—Albion Mfg. Co., Seattle, Wash.
Eastern Asbestos Co., Providence, R. I.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Frigid—C. Stanley Morgan, Detroit, Mich. (wool felt).
Illinois Fire Proof Covering Co., Inc., Chicago, Ill.
Johns-Manville Corporation, New York. Trade names—Asbestocel, Anti-Sweat.
Keasbey Co., Robt. A., New York, N. Y.
Laminduro, R. R. Special—Franklin Mfg. Co., Franklin, Pa.
Lion, Central—Central Asbestos & Magnesia Co., Chicago, Ill.
Mapco—Mid-West Asbestos Products, Co., Chicago, Ill.
National Air Cell, Pyrobestos—National Asbestos Mfg. Co., Jersey City, N. J.
National Magnesia Mfg. Co., San Francisco, Cal.
Newark Asbestos Products Co., Newark, N. J.
R. M. C.—Richards Mfg. Co., Grand Rapids, Mich.
Rutland—Rutland Fire Clay Co., Rutland, Vt.
Sall Mountain Co., Chicago, Ill. (Trade names—Alaska, Expanded, Multicell.)
Sil-O-Cel—Celite Products Co., Chicago, Ill.
Smith & Kanzler, Elizabeth, N. J.
Standard Asbestos Mfg. Co., Chicago, Ill.
Union—Union Fibre Co., Winona, Minn.
Union Rubber & Asbestos Co., Trenton, N. J.
U. S. Asbestos Co. of Illinois, Chicago, Ill. "Feather-weight Asbestos."
H. F. Watson Co., Erie, Pa. (Trade names—Air Cell, Clasbestos, Eureka, Frost Protection, Imperial.)

COVERING FOR BRINE, AMMONIA AND ALL COLD PIPE.

Ehret's—Ehret Magnesia Mfg. Co. Valley Forge, Pa.
J.-M. Zero—Johns-Manville, Inc., New York.
Nonpareil Cork, Nonpareil High Pressure—Armstrong Cork & Insulating Co., Pittsburg, Pa.
Security—Central Asbestos & Magnesia Co., Chicago.
Union Lith Covering—Union Fibre Co., Inc., Winona, Minn.
United Cork Companies, Lyndhurst, N. J.
Watson, H. F., Erie, Pa.
Zero—C. Stanley Morgan, Detroit, Mich.

COVERING, DECK.

Madesco Tackle Block Co., Easton, Pa. (Trade names—Litoselo, Madesco.)

COVERING, HOSE.

Advance Hose Mfg. Co., Philadelphia, Pa.
Mulconroy Co., Inc., Philadelphia, Pa. "Keystone," "Tight Grip."

COVERING, PULLEY.

Armstrong Cork & Insulation Co., Pittsburgh, Pa.
Campbell's—Chicago Pulley & Shafting Co., Chicago, Ill.
Chicago Non-Slip Pulley Covering Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Cincinnati Gasket & Packing Co., Cincinnati, O.
Eclipse—Eclipse Pulley Covering Co., Chicago, Ill.
Full Speed—American Chemical & Engineering Co., Chicago, Ill.
Goodrich, B. F., Rubber Co., Akron, O.
Graton & Knight Co., Worcester, Mass.
Grip-Tite—Cincinnati Gasket & Packing Co., Cincinnati, O.
Hawes Mfg. Co., Jersey City, N. J.
Hudson Belting Co., Worcester, Mass.
Kantslip—Freeport Truck & Clamp Co., Freeport, Mich.
Leather Parts Co., Indianapolis, Ind.
Leather Preserver Mfg. Co., Chicago, Ill.
Leather-to-Metal—F. Raniville Co., Grand Rapids, Mich.
Master Grip Mfg. Co., Austin, Tex.
Monarch—Monarch Co., Cleveland, O.
Mor-Peel—The Bradford Belting Co., Cincinnati, O.
Peerless Belting Co., Gardenville, N. Y. (No Slip.)
Percon Engineering Co., The, Swampscott, Mass.
Reinhold Belting & Strap Co., Brooklyn, N. Y.
Republic—Republic Rubber Co., The, Youngstown, O.
Warren Co., The, Niles, Mich.
Webb Belting Co., Kansas City, Mo.
Western Pulley Stone Co., Chicago, Ill.

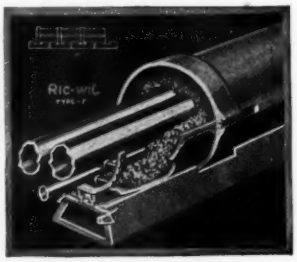
RIC-WIL CONDUIT

For Underground Steam Pipes

THE Ric-wiL vitrified tile conduit system for underground steam pipes is shipped to the job complete, is easy and economical to install scientifically water-tight and of high efficiency. Made in standard sizes 4 to 24 inches, to carry any number of pipes. Effective drainage secured by tile base drain which rests on trench bottom. Heavy cast iron pipe supports, spaced 12 feet apart, wedge solidly between sections of base drain, carrying pipes independent of conduit. Conduit is set on base drain which is a splendid foundation for the conduit, a strong interlocking construction. Special conduit sections furnished with holes for pipe supports. Loc-liP joints seal conduit along sides where split for installation, making a strong water-tight joint. Ric-wiL made of cast iron for extra heavy duty. Type DA designed for oil pipes, information on request. Blue prints and special instructions furnished make installation easy.

Type F.

Insulated by standard Ric-wiL conduit filler or Dry-paC (waterproof) for wet ground conditions, packed around the pipes at the most efficient density. Unusually high efficiency will not pack down to leave pipes exposed or corrode the pipes. Usually the most inexpensive type of Ric-wiL especially for a group of pipes.



Type SPC.

Recommended for wet soil conditions if Dry-paC is not used. Insulation consists of standard sectional pipe covering applied directly to the pipes, bound by copper wire and covered with waterproof roofing jacket. Bottom of conduit acts as internal drain, providing double drainage. Used with cork insulation for refrigeration pipes.

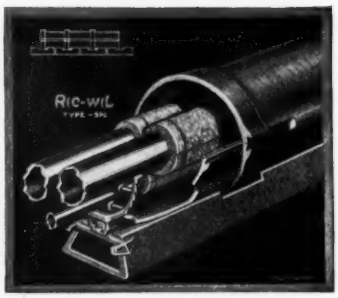


Table of Average Conduit Size for Various Pipes

Conduit Size, inches	4	6	8	10	12	15	18
Single Pipe (SPC)	1½	3	4½	6	8	10	12
Two Pipes (SPC)	.....	.....	1½–1½	2–2	3–3	4–4	5–5
Single Pipe (F)	1¼–1¼	2½	4	5	7	9	12
Two Pipes (F)	.....	1–1	1½–1½	2½–2½	3½–3½	4½–4½	5–5

Note.—Pipe sizes for Type SPC given are for standard thick sectional covering only. Third pipe if small and not insulated can often be included without increasing conduit size. Capacities of larger sizes of conduit and more than two pipes on request.

ADVANTAGES OF THE RIC-WIL SYSTEM

MECHANICAL

WATER-TIGHT JOINTS COMPLETELY SEALED AND CEMENT LOCKED IN.

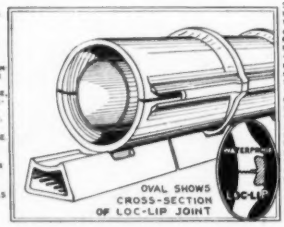
STRENGTH: AMPLE FOR USUAL CONDITIONS 40% STRONGER THAN ANY OTHER TILE SYSTEM.

INTERLOCKING CONSTRUCTION CONDUIT AND BASE DRAIN STAGGER JOINTS, PIPE SUPPORTS LOCKED IN PLACE, TOP AND BOTTOM OF CONDUIT LOCKED TOGETHER AND CEMENT LOCKED IN.

FOOL PROOF: TOP AND BOTTOM OF CONDUIT ALIKE. CAN NOT INSTALL UP SIDE DOWN.

BASE DRAIN: FOUNDATION AND CRADLE FOR CONDUIT TO REST ON.

PERMANENCY: MATERIALS ALL OF PERMANENT CHARACTER.



PRACTICAL

SPEED OF INSTALLATION: IMPORTANT FOR STREET WORK.

COMPLETE SYSTEM: RIC-WIL SYSTEMS ARE FURNISHED COMPLETE IN ALL DETAILS.

MINIMUM PUBLIC LIABILITY: LESS CONSTRUCTION IN STREETS.

TRENCH WIDTH: RIC-WIL REQUIRES LEAST TRENCH WIDTH. SAVES ON PAVING COST.

CEMENTING JOINTS: EXTRA EASY. CEMENT A WHOLE RUN AT ONE TIME.

INSPECTION: LOC-LIP JOINT VISIBLE FROM TOP OF TRENCH.

DRY INSULATION: DESIGN KEEPS INSULATION DRY AT ALL TIMES - EFFICIENCY.

COST: LABOR COST OF INSTALLATION IS LOW, AND TOTAL COST IN LINE.

The RIC-WIL Company

1571 UNION TRUST BLDG. CLEVELAND, OHIO

COVERING OR CASING, STEAM PIPE.

American District Steam Co., North Tonawanda, N. Y.
Armstrong Cork & Insulation Co., Pittsburgh, Pa.
Carey Multi-Pli—The Philip Carey Co., Cincinnati, O.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Enduro—C. Stanley Morgan, Detroit, Mich.
Johns-Manville, Inc., New York.
Michigan Pipe Co., Bay City, Mich. (wood).
Pyrobestos—The National Asbestos Mfg. Co., Jersey City, N. J.
Ric-Wil Company, The, Cleveland, O.
Standard Wood Pipe Co., Williamsport, Pa.
Union Asbestos & Rubber Co., Chicago, Ill.
United States Mineral Wool Co., New York, N. Y.
Wyckoff's—A. Wyckoff & Sons Co., Elmira, N. Y.
Wyckoff Pipe & Creosoting Co., Inc., The, New York (wood).

COVERS AND PLUGS, BASIN COCK HOLE.

American Brass Novelty Co., Grand Haven, Mich.
Ampinco—American Pin Co., Waterbury, Conn.
Exeter Brass Works, Exeter, N. H.
Federal-Huber Co., Chicago, Ill.
Frost Mfg. Co., Kenosha, Wis.
Hajoca Corporation, Philadelphia, Pa.
Hays Mfg. Co., Erie, Pa.
Kretschmer Mfg. Co., Dubuque, Ia.
Milwaukee Flush Valve Co., Milwaukee, Wis.
Rundle Mfg. Co., Milwaukee, Wis.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Victoria Metal Co., Erie, Pa.
Waterbury Mfg. Co., Waterbury, Conn.
Wiseco—J. B. Wise, Inc., Watertown, N. Y.
Wolff Mfg. Corp., Chicago, Ill.
Woodward-Wanger Co., Philadelphia, Pa.

COVERS, AUTO, WATERSHED.

Hettrick Mfg. Co., The, Toledo, O.

COVERS, CANVAS.

The Hettrick Mfg. Co., Toledo, O.
Johnson, J. W., Co., Chicago, Ill.

COVERS, FIRE HYDRANT.

American Foundry & Mfg. Co., St. Louis, Mo.

COVERS, LAUNDRY TRAY, GALVANIZED.

Eastern Metal Works, Brooklyn, N. Y.
Newark Fire Proof Sash & Door Co., Newark, N. J
Nustone Products Corp., New York, N. Y.
Olmstead-Thomson Mfg. Co., New Britain, Conn.
Shwab Bros. Co., New York, N. Y.
Unxld—Greason Mfg. Co., New York, N. Y. (reinforced).

COVERS, LAUNDRY TRAY, PORCELAIN ENAMELED.

Enamel Products Co., Cleveland, O.
Porcelain Enamel Co., Baltimore, Md.
Sher-White Enamel Corp., East Stroudsburg, Pa.
Vitreous Enameling Co., Cleveland, O.
Weiskittel, A., & Sons Co., Baltimore, Md.

COVERS AND FRAMES, LAUNDRY TRAY, WOOD.

Adams, E. G., Kingston, N. Y.
Berglas, M. P., Mfg. Co., Brooklyn, N. Y.
Furlong, Thos. N., San Francisco, Cal.
Kingston Granite Tub Works, Kingston, N. Y.
Leclaire Cabinet Works, Edwardsville, Ill.
Olmstead-Thomson Mfg. Co., The, New Britain, Conn.
Philadelphia Sheet Metal & Wood Works, Philadelphia, Pa.
Shwab Bros. Co., New York, N. Y.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Swett, A. L., Iron Works, Medina, N. Y.

COVERS AND FRAMES, MANHOLE AND SEWER

Alabama Pipe Co., Anniston, Ala.
American District Steam Co., North Tonawanda, N. Y.
American Fdy. & Mfg. Co., St. Louis, Mo.
Barber Mfg. Co., The, Ashtabula, O.
Barnes Mfg. Co., The, Mansfield, O.
Beggs Pipe & Foundry Co., Birmingham, Ala.
Bernz, Otto, Co., Newark, N. J.
Boosey—Greenwood Mfg. Co., Detroit, Mich.
Brayman Drain Co., New York, N. Y.
Canton Foundry & Machine Co., The, Canton, O.
Casey-Hedges Co., The, Chattanooga, Tenn.
Clark, H. W., Co., Mattoon, Ill.
Clarksville Foundry & Machine Works, Clarksville, Tenn.
Clow, James B., & Sons, Chicago, Ill.
Concord Foundry & Machine Co., Concord, N. H.
Craig, David, Boston, Mass.
Davis & Farnum Mfg. Co., Waltham, Mass.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Dougherty, Owen T., St. Paul, Minn.

Duplex Mfg. & Foundry Co., Elyria, O.
Eclipse—R. Munroe & Sons Mfg. Corp., Pittsburgh, Pa.
Eddy, R. M., Foundry Co., Chicago, Ill.
Elkhart Foundry & Machine Co., Elkhart, Ind.
Fee & Mason Mfg. Co., New York, N. Y.
Foran Foundry & Mfg. Co., Flemington, N. J.
Fox, John, & Co., New York, N. Y.
Glenn Mfg. Co., St. Charles, Ill.
Grinnell Co., Inc., Providence, R. I.
Guenther Foundry, The, Columbus, O.
Gulf States Pipe Corp., Anniston, Ala.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Hammond Iron Co., Birmingham, Ala.
Imico—Illinois Malleable Iron Co., Chicago, Ill.
Indiana Foundry Co., Indiana, Pa.
Jones Hollow Ware Co., Baltimore, Md.
Kokomo Brass Works, Kokomo, Ind.
Lukens Steel Co., Coatesville, Pa.
Lynchburg Foundry Co., Lynchburg, Va.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Modern Iron Works, Quincy, Ill.
National Tube Co., Pittsburgh, Pa.
Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.
Reading Foundry & Supply Co., Reading, Pa.
Ric-Will Company, The, Cleveland, O.
Roe—Glasgow Iron Co., Pottstown, Pa.
Sanitary Company of America, Linfield, Pa.
S. E. T. Valve & Hydrant Co., New York, N. Y.
Smith-Matthews Foundry Co., Detroit, Mich.
Stai—Hunt, Helm, Ferris & Co., Harvard, Ill.
Stuart's Safety—Stuart Foundry Co., Detroit, Mich.
Swett, A. L., Iron Works, Medina, N. Y.
Thacher Propeller & Foundry Corp., Albany, N. Y.
Treaty Co., The, Greenville, O.
Wale Iron Sanitary Mfg. Co., Chicago, Ill.
Walworth Company, Boston, Mass.
Wolverine Foundry Co., Detroit, Mich.
Wood, R. D., & Co., Philadelphia, Pa.

COVERS, OIL HOLE.

Bennett—Bay State Stamping Co., Worcester, Mass.
Empress—Bowen Mfg. Co., Auburn, N. Y.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Tucker—W. W. & C. F. Tucker, Hartford, Conn.
Worcester Pressed Steel Co., Worcester, Mass.

COVERS OR JACKETS, RANGE BOILER.

Bastian-Morley Co., La Porte, Ind.
Carey—The Philip Carey Co., Cincinnati, O.
Johns-Manville Corporation, New York, N. Y. (Trade names—Economy, Keystone.)

COVERS, SERVICE BOX.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Alabama Pipe Co., Anniston, Ala.
American Foundry & Mfg. Co., St. Louis, Mo.
Boosey—Greenwood Mfg. Co., Detroit, Mich.
Casey-Hedges Co., Chattanooga, Tenn.
Clark—H. W. Clark Co., Mattoon, Ill.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
Ford—Ford Meter Box Co., Wabash, Ind.
Gulf States Pipe Corp., Anniston, Ala.
Hammond Iron Co., Birmingham, Ala.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., Elmira, N. Y.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Sanitary Company of America, Linfield, Pa.
Walworth Company, Boston, Mass.
Ysure—Hays Mfg. Co., Erie, Pa.

COVERS, SUMP, GARAGE.

Boosey—Greenwood Mfg. Co., Detroit, Mich.

COVERS, SUMP, WELL AND SEPTIC TANK.

American Scale Co., Kansas City, Mo.
Stuart Foundry Co., Detroit, Mich.

COVERS, TRAP, BRASS.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Albrass Co., Inc., Coxsackie, N. Y.
American Foundry & Mfg. Co., St. Louis, Mo.
Ampinco—American Pin Co., Waterbury, Conn.
Blake Specialty Co., Rock Island, Ill.
Boosey—Greenwood Mfg. Co., Detroit, Mich.
Burlington Brass Works, Burlington, Wis.
Clean Sweep—Detroit Sanitary Supply Co., Detroit, Mich.
Dearborn Brass Co., Cedar Rapids, Ia.
Gibson Bros. Mfg. Co., North Chicago, Ill.
Glenn Mfg. Co., St. Charles, Ill.
Hays Mfg. Co., Erie, Pa.
Keystone Brass Works, Erie, Pa.
Kokomo Brass Works, Kokomo, Ind.
Lukomski Bros. Co., Detroit, Mich.
M.V.B.—Morency-Van Buren Mfg. Co., Sturgis, Mich.
Nelson Mfg. Co., N. O., St. Louis, Mo.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Steele & Johnson Mfg. Co., Waterbury, Conn.
Richmond Foundry & Mfg. Co., Inc., Richmond, Va.
Stringer Bros. Co., Chicago, Ill.
Union Metal Works, Inc., Chelsea, Mass.
Walworth Company, Boston, Mass.
Waterbury Mfg. Co., Waterbury, Conn.
Wiseco—J. B. Wise, Inc., Watertown, N. Y.

COVERS, TRAP, IRON.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Alabama Pipe Co., Anniston, Ala.
American Foundry & Mfg. Co., St. Louis, Mo.
Blake Specialty Co., Rock Island, Ill.
Central Specialty Co., Detroit, Mich.
East Penn. Foundry Co., Macungie, Pa.
Glenn Mfg. Co., St. Charles, Ill.
Indiana Foundry Co., Indiana, Pa.
Mueller Co., Decatur, Ill.
Reading Foundry & Supply Co., Reading, Pa.
Saaco—Sanitary Company of America, Linfield, Pa.
Salem Brass & Iron Mfg. Co., Bridgeton, N. J.
Smith-Matthews Foundry, Detroit, Mich.
Stringer Bros. Co., Chicago, Ill.
Wade Iron Sanitary Mfg. Co., Chicago, Ill.

COVERS, TRAP, SOIL PIPE.

Gulf States Pipe Corp., Anniston, Ala.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.

CRABS, HOISTING.

American—American Hoist & Derrick Co., St. Paul, Minn.
Brown Hoist—Brown Hoisting Machinery Co., Cleveland, O.
Clyde Iron Works, Duluth, Minn.
Dake Engine Co., Grand Haven, Mich.
Dobbie Fdy. & Machine Co., Niagara Falls, N. Y.
Fairbanks, Morse & Co., Chicago, Ill.
Parker, S. E., Chicago, Ill.
Round & Son, D., Cleveland, O.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Yale & Towne Mfg. Co., Stamford, Conn.

CRANES CRAWLING TRACTOR.

Industrial Works, Bay City, Mich.
Link-Belt Co., Chicago and Philadelphia.

CRANES, EXCAVATOR, PORTABLE.

Harnischfeger Corp., The, Milwaukee, Wis.
Link-Belt Company, Chicago, Ill.

CRANES, GANTRY, CANTILEVER BRIDGE PILLAR.

Cleveland Crane & Engineering Co., Wickliffe, O.
Hayward—The Hayward Co., New York, N. Y.
Link-Belt Company, Chicago and Philadelphia, Pa.
Orton & Steinbrenner Co., Chicago, Ill.

CRANES AND HOISTS, GRAB BUCKET.

Box Crane & Hoist Corp., Philadelphia, Pa.
Cleveland Crane & Engineering Co., Wickliffe, O.
Link-Belt Company, Chicago and Philadelphia.
Shepard Electric Crane & Hoist Co., Montour Falls, N. Y.

CRANES, HYDRAULIC.

Chambersburg Engineering Co., Chambersburg, Pa.
Cleveland Crane & Engineering Co., Wickliffe, O.
Morgan Engineering Co., Alliance, O.
Southwark Foundry & Machine Co., Philadelphia, Pa.
United Engineering & Foundry Co., Pittsburgh, Pa.
Watson-Stillman Co., The, New York, N. Y.
Wellman-Seaver-Morgan Co., Cleveland, O.
Wood & Co., R. D., Philadelphia, Pa.
Wood, William H., Media, Pa.

CRANES, JIB.

Allen Engineering Co., Philadelphia, Pa.
Box Crane & Hoist Corp., Philadelphia, Pa.
Brown Hoisting Machinery Co., Cleveland, O.
Chisholm & Moore Mfg. Co., Cleveland, O.
Cleveland Crane & Engineering Co., Wickliffe, O.
Conco—H. D. Conkey & Co., Mendota, Ill.
Curtis & Co. Mfg. Co., St. Louis, Mo.
Euclid Crane & Hoist Co., Euclid, O.
Harnischfeger Corp., The, Milwaukee, Wis.
Johnston & Jennings Co., The, Cleveland, O.
Marion Steam Shovel Co., Marion, O.
Maris Bros., Philadelphia, Pa.
Morgan Engineering Co., Alliance, O.
Morris, Herbert, Inc., Buffalo, N. Y.
New Jersey Foundry & Machine Co., New York, N. Y.
Niles-Bement-Pond Co., New York, N. Y.
Northern Engineering Works, Detroit, Mich.
Osgood Co., Marion, Ohio.
Parker, S. E., Chicago, Ill.
Ridgway, C., & Son Co., Coatesville, Pa.
Round, D., & Son, Cleveland, O.

R-W—Richards-Wilcox Mfg. Co., Aurora, Ill.
Shepard Electric Crane & Hoist Co., Montour Falls, N. Y.
Wood, R. D., & Co., Philadelphia, Pa.
Yale & Towne Mfg. Co., Stamford, Conn.

CRANES, LOCOMOTIVE.

American—American Hoist & Derrick Co., St. Paul, Minn.
Baker-Raulang Co., The, Cleveland, O. "Baker."
Bradney Machine Co., Inc., Middletown, N. Y.
Brownhoist—The Brown Hoisting Machinery Co., Cleveland, O. (Steam, gasoline, electric and gas electric.)
Browning-Crane Co., The, Cleveland, O. "Browning."
Buffalo Hoist & Derrick Co., Buffalo, N. Y.
Byers, John F., Machine Co., Ravenna, O.
Davenport—Davenport Locomotive Wks, Davenport, Iowa.
Harnischfeger Corp., The, Milwaukee, Wis.
Industrial Works, Bay City, Mich.
Koehring Company, The, Milwaukee, Wis.
Link-Belt Company, Chicago and Philadelphia.
Morgan Engineering Co., Alliance, O.
New Jersey Foundry & Machine Co., New York, N. Y.
Northern Engineering Works, Detroit, Mich.
Ohio Crane Co., Bucyrus, O.
Orton Crane & Shovel Co., Chicago, Ill.
Osgood Co., Marion, Ohio.
Seaverns, James B., Co., Chicago, Ill.
Thew—The Thew Shovel Co., Lorain, O. (Steam, gasoline, electric.)
Wellman-Seaver-Morgan Co., Cleveland, O.

CRANES, MAGNET.

Cleveland Crane & Engineering Co., Wickliffe, O.
Cutler-Hammer Co., Milwaukee, Wis.
Link-Belt Company, Chicago and Philadelphia, Pa.
Shepard Electric Crane & Hoist Co., Montour Falls, N. Y.

CRANES, MATERIAL HANDLING.

Link-Belt Company, Chicago and Philadelphia.

CRANES, MOTOR TRUCK.

Baker-Raulang Co., The, Cleveland, O. "Baker."
Bradney Machine Co., Inc., Middletown, N. Y.
Mead & Morrison Mfg. Co., East Boston, Mass.
Orton Crane & Shovel Co., Chicago, Ill.
Universal Crane Co., The, Elyria, O.

CRANES, PILLAR.

Industrial Works, Bay City, Mich.
New Jersey Foundry & Machine Co., New York, N. Y.

CRANES, PNEUMATIC.

Brown Hoisting Machinery Co., Cleveland, O.
Detroit Hoist & Machine Co., Detroit, Mich.
Ingersoll-Rand Co., New York, N. Y.
Northern Engineering Works, Detroit, Mich.

CRANES, PORTABLE.

Baker-Raulang Co., The, Cleveland, O. "Baker."
Barrett-Cravens Co., Chicago, Ill. "Neverslip."
Bradney Machine Co., Inc., Middletown, N. Y.
Browning Crane Co., The, Cleveland, O.
Byers, John F., Machine Co., The, Ravenna, O.
Can-ton—Canton Foundry & Machine Co., Canton, O.
Champion—S. G. Milton & Son, Franklin, Pa.
Duat—Clark Tructractor Co., Buchanan, Mich.
Duken Type—Naperville Machine Co., Inc., Naperville, Ill.
Elwell-Parker Electric Co., Cleveland, O.
Franklin—The Franklin Portable Crane & Hoist Co., Franklin, Pa.
Hammond—Beatty Machine & Mfg. Co., Hammond, Ind.
"Handiest Tool in the Shop"—Canton Foundry & Machine Co., The, Canton, O.
Hunt, C. W., Co., West New Brighton, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Link-Belt Company, Chicago and Philadelphia.
Manley Mfg. Co., York, Pa.
Mummert-Dixon Co., Hanover, Pa. (and grinder combined).
Mundy—J. S. Mundy Hoisting Engine Co., Newark, N. J.
R-W—Richards-Wilcox Mfg. Co., Aurora, Ill.
S. A.—Stephens-Adamson Mfg. Co., Aurora, Ill.
Simplex—D. Round & Son, Cleveland, O.
Street Brothers Machine Works, Chattanooga, Tenn.
Universal Crane Co., Cleveland, O.
Weaver Hoist—Weaver Mfg. Co., Springfield, Ill.
Yale & Towne Mfg. Co., The, Stamford, Conn.

CRANES, SOAKING PIT.

Morgan Engineering Co., Alliance, Ohio.

CRANES, STEAM.

Link-Belt Company, Chicago and Philadelphia.
Thew Shovel Co., The, Lorain, O.

CRANES, TRANSFER

Byers Machine Co., The John F., Ravenna, O.
C. M.—The Chisholm-Moore Mfg. Co., Cleveland, O.
Euclid—Euclid Crane & Hoist Co., Euclid, O.
Harnischfeger Corp., The, Milwaukee, Wis.
Industrial Works, Bay City, Mich.
Link-Belt Company, Chicago and Philadelphia.
Maris Bros., Philadelphia, Pa.
New Jersey Foundry & Machine Co., New York.
Shepard Electric Crane & Hoist Co., Montour Falls, N. Y.

CRANES, TRAVELING, ELECTRIC.

Armington—Armington Engineering Co., Wickliffe, O.
Bedford Foundry & Machine Co., Bedford, Ind.
Box Crane & Hoist Corp., Philadelphia, Pa.
Chisholm-Moore Mfg. Co., The, Cleveland, O.
Cleveland Crane & Engineering Co., Wickliffe, O.
Conco—H. D. Conkey & Co., Mendota, Ill.
C. M.—The Chisholm-Moore Mfg. Co., Cleveland, O.
Curtis & Co. Mfg. Co., St. Louis, Mo.
Detroit Hoist & Machine Co., Detroit, Mich.
Dickerman Hoist Mfg. Co., Cleveland, Ohio.
Euclid Crane & Hoist Co., Euclid, O.
Harnischfeger Corp., The, Milwaukee, Wis.
Imperial—Franklin Moore Co., Winsted, Conn.
Johnston & Jennings Co., The, Cleveland, O.
Lane Mfg. Co., Montpelier, Vt.
Link-Belt Company, Chicago and Philadelphia.
Maris Bros., Philadelphia, Pa.
Milwaukee—Milwaukee Electric Crane & Mfg. Co., Milwaukee, Wis.
Morgan Engineering Co., Alliance, O.
Morris—Herbert Morris, Inc., Buffalo, N. Y.
New Jersey Foundry & Machine Co., New York, N. Y.
Niles-Bement-Pond Co., New York, N. Y.
Northern Engineering Works, Detroit, Mich.
Palmerbee—Palmer-Bee Company, Detroit, Mich.
Parker, S. E., Chicago, Ill.
Reading—Reading Chain Block Co., Reading, Pa.
Roeper Crane & Hoist Works, Inc., Reading, Pa.
Sellers, Wm., & Co., Inc., Philadelphia, Pa.
Shaw—Manning Maxwell & Moore, Inc., New York.
Shepard Electric Crane & Hoist Co., Montour Falls, N. Y.
Shriver, T., & Co., Harrison, N. J.
Simplex—D. Round & Son, Cleveland, O.
Sprague Electric Hoist Division, The, of the Shepard Electric Crane & Hoist Co., New York, N. Y.
Vulcan—Vulcan Mfg. Co., Seattle, Wash.
Wellman-Seaver-Morgan Co., Cleveland, O.
Wright Mfg. Co., Lisbon, O.
Yale & Towne Mfg. Co., Stamford, Conn.

CRANES, TRAVELING, HAND POWER.

American Mono Rail Co., The, Cleveland, O.
Armington Engineering Co., Wickliffe, O.
Box Crane & Hoist Corporation, Philadelphia, Pa.
Brown Hoisting Machinery Co., The, Cleveland, O.
Busch Co., J. C., Milwaukee, Wis.
Canton Foundry & Machine Co., The, Canton, Ohio.
Chambersburg Engineering Co., Chambersburg, Pa.
Chisholm-Moore Mfg. Co., The, Cleveland, O.
Cleveland—Cleveland Crane & Engineering Co., Wickliffe, O.
Conco—H. D. Conkey & Co., Mendota, Ill.
Dobbie Fdy. & Machine Co., Niagara Falls, N. Y.
Euclid—Euclid Crane & Hoist Co., Euclid, Ohio.
Harnischfeger Corp., The, Milwaukee, Wis.
Industrial Works, Bay City, Mich.
Lane Mfg. Co., Montpelier, Vt.
Maris Bros., Philadelphia, Pa.
Moore, Franklin, Co., The, Winsted, Conn.
Morris—Herbert Morris, Inc., Buffalo, N. Y.
New Jersey Foundry & Machine Co., New York, N. Y.
Niles-Bement-Pond Co., New York, N. Y.
Palmerbee—Palmer-Bee Company, Detroit, Mich.
Parker, S. E., Chicago, Ill.
Paxson Co., J. W., Philadelphia, Pa.
Reading—Reading Chain Block Co., Reading, Pa.
Roeper Crane & Hoist Works, Inc., Reading, Pa.
R-W—Richards-Wilcox Mfg. Co., Aurora, Ill.
Shepard Electric Crane & Hoist Co., Montour Falls, N. Y.
Wright—Wright Mfg. Co., Lisbon, O.
Yale & Towne Mfg. Co., Stamford, Conn.
Young, R. W., Mfg. Co., Chicago, Ill.

CRANKS, BALL.

Balcrank—Cincinnati Ball Crank Co., Cincinnati, O.

CRANKS, LOOM.

Babbitt—Babbitt Steam Specialty Co., New Bedford, Mass.

CRAYONS, INDUSTRIAL.

Dixon, Jos., Crucible Co., Jersey City, N. J.
Georgia Talc Co., Asheville, N. C.
Gold Medal, Staonal, Pyrotalcal (metalworkers')—Binney & Smith Co., New York, N. Y.
National Products Co., East Liverpool, O.

Standard—Standard Crayon Mfg. Co., Danvers, Mass.
Steward, D. M., Mfg. Co., Chattanooga, Tenn.
Superior—Standard Oil Co. of New York, New York, N. Y.
Zelnicker Crayon Works, St. Louis, Mo. Trade names—Zelnicker, Elson, Giant, Easymark, Steelmark, Supermark, Suremark.

CROWBARS.

Horseshoe—The Stanley Rule and Level Plant, Atha Dept., New Britain, Conn.
Hubbard & Co., Pittsburg, Pa.
Iron City Star—Iron City Tool Works, Pittsburg, Pa.
Leetonia Tool Co., Leetonia, Ohio.
Oliver Iron & Steel Corp., Pittsburgh, Pa.
Tyrone—Oliver Iron & Steel Corp., Pittsburgh, Pa.
Warren Tool & Forge Co., The, Warren, O.
Warwood—Warwood Tool Co., Wheeling, W. Va.

CRUCIBLES AND RETORTS.

Chicago Crucible Co., Chicago, Ill.
Crayons—Dixon Crucible Co., Jos., Jersey City, N. J.
McCullough-Dalzell Crucible Co., Pittsburgh, Pa.
Seidel— **R. B. Seidel, Inc., Philadelphia, Pa.**
Victory—Jonathan Bartley Crucible Co., Trenton, N. J.

CRUSHING PLANTS, CONTRACTORS' PORTABLE.

Jeffrey—Jeffrey Mfg. Co., Columbus, O.
New Holland—New Holland Machine Co., New Holland, Pa.
Smith Engineering Works, Milwaukee, Wis.

CUP AND VALVE LEATHERS.

(See "Leathers, Hydraulic," and "Packing, Hydraulic.")
Algco—Auburn Leather Goods Co., Hartford, Conn.
American Washer Works, Brooklyn, New York.
Chicago Belting Co., Chicago. Ill.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Colebrook's Sons, W. H., Syracuse, N. Y.
Dragon Mfg. Co., Marietta, O.
Excelsior Leather Washer Mfg. Co., Rockford, Ill. "X L."
Fieldco—R. B. Field & Co., Worcester, Mass.
Garrison-Heiland Corp., New York.
Gibraltar—Burton Greene Leather Co., Chicago, Ill.
Graton & Knight Co., Worcester, Mass. "Blacknight."
Hess & Hopkins Leather Co., Rockford, Ill.
Johnson, Henry, Co., Inc., The, Jersey City, N. J.
Judd & Leland Mfg. Co., Clifton Springs, N. Y.
Kendrick Valve & Washer Co., Syracuse, N. Y.
Ladew, Edw. R., Co., Inc., New York, N. Y.
Marietta Valve Cup Corp., Marietta, O.
Reinhold Belting & Strap Co., Brooklyn, N. Y.
Schieren, Chas. A., & Co., New York, N. Y.
Sunset—L. P. Degen Belting Co., San Francisco, Calif.
Sutherland Leather & Felt Co., Detroit, Mich.
Vim—E. F. Houghton & Co., Philadelphia, Pa.
Watson-Stillman Co., The, New York, N. Y.
Wear Well—Horace G. Preston Co., Detroit, Mich.
W. S. P.—Western Packing & Supply Co., Chicago, Ill.

CUPS, DRIP.

Buffalo—Sherwood Mfg. Co., Buffalo, N. Y.

CUPS, FORCE, PLUMBERS'.

Coleman, Allan J., Chicago, Ill. "Coleman's."
Durst Mfg. Co., Inc., New York, N. Y. "Dumaco."

CUPS, GREASE, AUTOMATIC.

Airspring—Hunter Pressed Steel Co., Lansdale, Pa.
American Injector Co., Detroit, Mich.
C. C.—Crane Co., Chicago, Ill.

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Dandy—The D. T. Williams Valve Co., Cincinnati, O.
Duchess—The D. T. Williams Valve Co., Cincinnati.
Essex Brass Corp., Detroit, Mich.
France—The France Packing Co., Philadelphia, Pa.
General Brass Company, Detroit, Mich.
Industrial Requirements Co., Philadelphia, Pa.
Liberty—J. E. Lonergan Co., Philadelphia, Pa.
Lindholm, Camden—Lindholm Metal Stamping Co., Camden, N. J.
Marquette—W. D. Allen Mfg. Co., Chicago, Ill.

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Compression Grease Cups
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Ohio, Chicago—The Ohio Injector Co., Wadsworth, O.
Powell Co., The Wm., Cincinnati, O.
Swift Lubricator Co., Elmira, N. Y.
Walworth Company, Boston, Mass.

CUPS, GREASE, COMPRESSION.

Ajax Hafunel—City Iron Works & Machine Co., Philadelphia, Pa.
Albany, Alpha, Cook's—Adam Cook's Sons, New York.
Allen, W. D., Mfg. Co., Chicago, Ill. (Trade names—Columbia, Gibbs, Golden Rule, Peerless, Polar.)
American—American Injector Co., Detroit, Mich.
American—American Lubricator Co., Detroit, Mich.
American Safety Lamp & Mine Supply Co., Scranton, Pa.
American Stamping Co., Battle Creek, Mich. (plain and ratchet)
Art—American Lubricator Co., Detroit, Mich.
Automatic—American Lubricator Co., Detroit, Mich.
Bennett—Bay State Stamping Co., Worcester, Mass.
C. C.—Crane Co., Chicago, Ill.
Chicago—The Ohio Injector Co., Wadsworth, O.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Electric Water Sterilizer & Ozone Co., Scottdale, Pa.
Empress—Bowen Products Corp., Auburn, N. Y.
Essex Brass Corp., Detroit, Mich.
Faul, William J., Co., New York, N. Y.
Garratt & Co., W. T., San Francisco, Cal.
General Brass Company, Detroit, Mich.
Guillott Metal Gasket & Supply Co., Chicago, Ill.
Halls—Hall Mfg. Co., Harrison, N. J.
Hex-Top—Link Belt Co., Chicago and Philadelphia. (Malleable iron.)
Hunter—Hunter Pressed Steel Co., Lansdale, Pa. (plain and ratchet.)
K M—K. M. Mfg. Co., The, Toledo, Ohio.
Lion—American Lubricator Co., Detroit, Mich.
Lonergan—J. E. Lonergan Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, O. Trade names: Apollo, Atlas, Checklock, Ferro, Grip, Gem, Guard, Ideal, Jewel, Lion, Lock, Majestic, Marine, Owl, Positive, Primo, Securo, Wingo, Surety, Tiger, Dextro, Teeferro.
McKinnon Iron Works Co., Ashtabula, O.
"M & E"—Merchant & Evans Co., Philadelphia, Pa.
Metal Engineering Co., Danville, Pa.
Milwaukee Valve Co., Milwaukee, Wis. (plain brass).
Moak Machine & Supply Co., Port Huron, Mich.
National Brass Mfg. Co., Rochester, N. Y.
Navy—American Lubricator Co., Detroit, Mich.
Never Slip—American Injector Co., Detroit, Mich.
New Idea—Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Nunn's Acme—Nunn Brass Works, Rochester, N. Y.
O'Connell—Hills-McCanna Co., Chicago, Ill.
Ohio—Ohio Grease Co., The, Loudonville, O.
Penberthy Injector Co., Detroit, Mich. (Trade names—Samson, Saturn, Senator, Silex.)
Perkes, Chas. Co., Philadelphia, Pa.
Powell Co., The Wm., Cincinnati, O. Trade names: Automatic, Bear, Bruno, Coin, Colonial, Consort, Compression, Mascot, Mac, Mecca, Mikado, Mogul, Progress, Renown, Steel, Vanguard, Famous, Heather, Popular, Sterling.
Protevus—J. E. Lonergan Co., Philadelphia, Pa.
Reliable—Michigan Lubricator Co., Detroit, Mich.
Richardson-Phenix Co., The, Milwaukee, Wis.
Robertson, Wm., & Son, Chicago, Ill. (Trade names—Jiffy, Self-Aligning, Standard.)
Sherman, H. B., Mfg. Co., Battle Creek, Mich. (Trade names—Active, Force, Premium.)
Sherwood Mfg. Co., Buffalo, N. Y. Trade names—Buffalo, Compression, Screw Feed, Sherwood, Niagara.

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Williams, D. T., Valve Co., The, Cincinnati, O. (Trade names—Daisy, Dakota, Dahlia, Diamond, Diana, Derby, Dragon, Dwarf.)
Worcester Pressed Steel Co., Worcester, Mass.

CUPS, HYDRANT.

(See "Packing, Leather, Hydraulic.")

CUPS, LEATHER.

(See "Cup and Valve Leathers" on page 101)

CUPS, OIL, FORCE FEED.

Arcadia—Arcadia Lubricator Co., Long Beach, Cal.
Knorr—Malcolm H. Smith Co., Inc., Boston, Mass.
Oil-Kipp—Madison-Kipp Corp., Madison, Wis.

CUPS, OIL, GLASS BODY.

American—American Injector Co., Detroit, Mich.
American—American Lubricator Co., Detroit, Mich.
Buffalo—Sherwood Mfg. Co., Buffalo, N. Y.
C. C.—Crane Co., Chicago, Ill.
Chicago—The Ohio Injector Co., Wadsworth, O.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, O.
Essex—Essex Brass Corp., Detroit, Mich.
General Brass Company, Detroit, Mich.
Kelly Lubricator Co., Syracuse, N. Y.
Lonergan—J. E. Lonergan Co., Philadelphia, Pa.
National Brass Manufacturing Co., Rochester, N. Y.
No-Ta—Rich Mfg Co., Boston, Mass.
Pilgrim—The Wm. Powell Co., Cincinnati, O.
Pilot—Essex Brass Corp., Detroit, Mich.
Powell Co., The Wm., Cncinnati, O.
Puritan—The Wm. Powell Co., Cincinnati, O.
Signal—The Wm. Powell Co., Cincinnati, O.
Walworth Company, Boston, Mass.
Yankee—W. D. Allen Mfg. Co., Chicago, Ill.

CUPS, OIL, LOOSE PULLEY.

Advance Specialty Co., Grand Rapids, Mich.
American—American Lubricator Co., Detroit, Mich.
Brown—Brown Engineering Co., Reading, Pa.
Justrite Mfg. Co., Inc., Chicago, Ill.
Lonergan—J. E. Lonergan Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, O.
Oil First—Biggar Brothers, Oneida, N. Y.
Powell Co., The Wm., Cincinnati, O.

CUPS, OIL, MULTIPLE.

(See also "Lubricators, Force Feed.")
American Injector Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
General Brass Company, Detroit, Mich.
Powell Co., The Wm., Cincinnati, O.
Nota, Phillip's—Rich Mfg. Co., Boston, Mass.

CUPS, OIL, PLAIN BRASS AND STEEL.

Allen, W. D., Mfg. Co., Chicago, Ill.
American—American Injector Co., Detroit, Mich.
American Safety Lamp & Mine Sup. Co., Scranton, Pa.
Bartow's Signal Oiler—Hall Mfg. Co., Harrison, N. J.
Bennett—Bay State Stamping Co., Worcester, Mass.
C. C.—Crane Co., Chicago, Ill.
Challenge—American Lubricator Co., Detroit, Mich.
Common Sense—The Wahlstrom Co., Brooklyn, N. Y.
Corsair—The Wm. Powell Co., Cincinnati, O.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, Ohio.
Emerald—J. E. Lonergan Co., Philadelphia, Pa.
Emergency—American Injector Co., Detroit.
Empress—Bowen Products Corp., Auburn, N. Y.

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Mundy—J. S. Mundy Hoisting Engine Co., Newark, N. J.
National Hoisting Engine Co., Harrison, N. J.
New Jersey Foundry & Machine Co., New York, N. Y.
Parker, S. E., Chicago, Ill.
Samsco—San Antonio Machine & Supply Co., San Antonio, Tex.
Sasgen Derrick Co., The, Chicago, Ill.
Shannon—J. Jacob Shannon & Co., Philadelphia, Pa. (Travelers.)
Smith—The T. L. Smith Co., Milwaukee, Wis.
Street Brothers Machine Works, Chattanooga, Tenn.
Superior Iron Works Co., Superior, Wis.
Taylor—Taylor Portable Steel Derrick Co., Chicago, Ill. (Gondola and derrick type.)
Vulcan Tool Mfg. Co., The, Quincy, Mass. (Fittings only.)

DERRICKS, OR TRIPODS, PORTABLE.

Forest—National Iron Co., Duluth, Minn.
Hayward—The Hayward Co., New York, N. Y.
Pollard, Joseph G., Co., Inc., Brooklyn, N. Y. (pipe)

DESKS, FACTORY, STEEL.

Lupton's, David, Sons Co., Philadelphia, Pa.

DETECTORS, COMMON AND FLOW.

Central Automatic Sprinkler Co., Philadelphia, Pa.
Lewis—Lewis Steam Specialty & Valve Co., Philadelphia, Pa.

DIALS, THREAD.

E-Z—James M. Colven, Yonkers, N. Y.

DIAMONDS, INDUSTRIAL.

Crafts, Arthur A., & Co., Boston, Mass.
Diamond Drill Carbon Co., The, New York, N. Y.
Gilmore, F. F., Co., Boston, Mass.
Joyce-Koebel Co., Inc., New York, N. Y.
Wheel Trueing Tool Co., Detroit, Mich.

DIAPHRAGMS, METAL.

Glenn Mfg. Co., St. Charles, Ill.
Locke Regulator Co., Salem, Mass.
Phoenix Specialty Mfg. Co., New York, N. Y.

DIAPHRAGMS, RUBBER.

Buckley Rubber Co., J. W., New York, N. Y.
Canfield Rubber Co., The, Bridgeport, Conn. (hopper, closet and steam).
Cincinnati Rubber Mfg. Co., Cincinnati, O.
Edson Mfg. Corp., Boston, Mass.
Goodrich, B. F., Rubber Co., The, Akron, O.
Gutta Percha & Rubber Mfg. Co., New York, N. Y.
Hewitt—Hewitt Rubber Co., Buffalo, N. Y.
La Favorite Rubber Mfg. Co., Paterson, N. J.
Locke Regulator Co., Salem, Mass.
Mechanical Rubber Co., Cleveland, Ohio.
New York Rubber Corporation, Beacon, N. Y.
Quaker City Rubber Co., Philadelphia, Pa.
Edson, Loud—The Republic Rubber Co., Youngstown, O.
Star—Boston & Lockport Block Co., Boston, Mass.
Triple Diamond—New York Belting & Packing Co., Inc., New York.
United States Rubber Co., New York, N. Y.
United & Globe Rubber, Inc., Trenton, N. J.

DIE SINKING OUTFITS.

Haskins—R. G. Haskins Co., Chicago, Ill.
Stow Mfg. Co., Binghamton, N. Y.

DIE SETS.

Bilton Machine Tool Co., The, Bridgeport, Conn.
Danly—Danly Machine Specialties, Inc., Chicago, Ill.
United States Tool Co., Inc., Ampere, N. J.

DIES, AUTOMATIC OPENING.

(See also "Heads, Die.")

Baird Machine Co., The, Bridgeport, Conn.
Butterfield & Company Div., Union Twist Drill Co., Derby Line, Vt.
Consolidated Machine Tool Corp. of America, New York, N. Y.
Errington—Errington Mechanical Laboratory, New York, N. Y.
Geometric Tool Co., New Haven, Conn.
G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.
Hartness—Jones & Lamson Machine Co., Springfield, Vt.
Ideal—Ideal Foundry & Machinery Co., Beaver Falls, Pa.
Landis Machine Co., Inc., Waynesboro, Pa.
Namco—The National Acme Co., Cleveland, O.
Nelson Tool Co., Inc., New York, N. Y.
Russell—Russell Mfg. Co., Greenfield, Mass.
Threadwell Tool Co., The, Greenfield, Mass.

DIES, BENDING AND TRIMMING.

Nelson Tool Co., Inc., New York, N. Y.
Reid—R. H. Brown & Co., New Haven, Conn.
Stoll, D. H., Co., Inc., Buffalo, N. Y.

DIES, BLANKING.

Consolidated Machine Tool Corp. of America, New York, N. Y.
Grammes, L. F., & Sons, Allentown, Pa.
Konigslow, E., Stamping & Tool Works, Cleveland, Ohio.
Michigan Metal Spinning Mfg. Co., Detroit, Mich.
Nelson Tool Co., Inc., New York, N. Y.
Pulte-Korreck Machine Co., Grand Rapids, Mich.
Reid—R. H. Brown & Co., New Haven, Conn.
Stoll, D. H. Co., Inc., Buffalo, N. Y.

DIES, BRASS PRINTING.

Pittsburg Stamp Co., Inc., Pittsburg, Pa.

DIES, FOR BRASS TUBING.

Boston Brass Co., Waltham, Mass.
Russell—Russell Mfg. Co., Greenfield, Mass.
Walworth Company, Boston, Mass.

DIES, CASING THREADING.

Non-Parell Die Co., The, Camden, N. J.

DIES, CUTTING AND FORMING.

Adriance Machine Works, Brooklyn.
Bliss Co., E. W., Brooklyn.
Baird Machine Co., The, Bridgeport, Conn.
Grammes, L. F., & Sons, Allentown, Pa.
Gardam, Wm., & Son., Inc., New York, N. Y.
Hoggson & Pettis Mfg. Co., New Haven, Conn.
Konigslow, E., Stamping & Tool Works, Cleveland, Ohio.
Michigan Metal Spinning Mfg. Co., Detroit, Mich.
Nelson Tool Co., Inc., New York, N. Y.
Pulte-Korreck Machine Co., Grand Rapids, Mich.
Stoll, D. H. Co., Inc., Buffalo, N. Y.

DIES, CUTTING AND MARKING.

Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Matthews & Co., Jas. H., Pittsburg, Pa.

DIES, PIPE THREADING.

American Brand—American Pipe Tool Co., Chicago, Ill.
Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Mfg. Co., The, Bridgeport, Conn.
Bay State—Bay State Tap & Die Co., Mansfield, Mass.
Beaver—Borden Co., Warren, O.
Brubaker, W. L., & Bros. Co., New York, N. Y.
Buckeye—The Hart Mfg. Co., Cleveland, O.
Bulldog—The Oster Mfg. Co., Cleveland, O.
Butterfield & Company Div., Union Twist Drill Co., Derby Line, Vt.
Cox & Sons Co., The, Bridgeton, N. J.
Crown—Crown Die & Tool Co., Chicago, Ill.
Curtis & Curtis Co., The, Bridgeport, Conn.
Diamond Edge—Kruse & Slattery Tool & Die Co., Camden, N. J.
Duplex—The Hart Mfg. Co., Cleveland, O.
Edward Mfg. Co., Brooklyn, N. Y. "6 in 1 Tool."
Erie—Erie Tool Works, The, Erie, Pa.
G. T. D., Acorn, Little Giant, O. K.—Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands—Hollands Mfg. Co., The, Erie, Pa.
Ideal—Ideal Foundry & Machinery Co., Beaver Falls, Pa.
Landis Machine Co., Waynesboro, O.
Modern—Consolidated Machine Tool Corp. of America, New York, N. Y.
Moore & Moore, Inc., Reading, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass
National Acme Co., The, Cleveland, O.
Non-Parell Die Co., The, Camden, N. J.
Nye—Nye Tool & Machine Works, Chicago, Ill.
Pipe Machinery Co., The, Cleveland, O. (special).
Polk & Son, A. J., Millersburg, Pa.
Reed Mfg. Co., Erie, Pa.
Reliable—Conant & Donelson Co., Conway, Mass
Russell—Russell Mfg. Co., Greenfield, Mass.
Saunders—D. Saunders Sons, Inc., Yonkers, N. Y.
Simplex High Speed—Simplex Tool & Supply Co., Boston, Mass.
Thistle—Winter Bros. Co., Wrentham, Mass.
Toledo—Toledo Pipe Threading Machine Co., The, Toledo, O.
Toledo—Toledo Tap Co., Toledo, O.
Walworth Company, Boston, Mass.
Threadwell Tool Co., The, Greenfield, Mass.

DIES, RE-THREADING, HEXAGON.

G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.

DIES, RIVET MACHINE, GRIPPING AND HEADING.

New Process—Geo. F. Marchant Co., Chicago, Ill.

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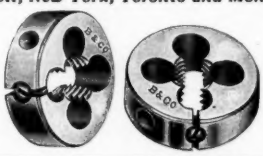

DIES, SCREW CUTTING, ADJUSTABLE, BOILER-MAKERS', ETC.

Armstrong Mfg. Co., Bridgeport, Conn.
Bay State—Bay State Tap & Die Co., Mansfield, Mass
Butterfield & Co., Div. Union Twist Drill Co., Derby Line, Vt.
Carpenter Tap & Die Co., J. M., Pawtucket, R. I.
Common Sense—W. L. Brubaker & Sons, New York, N. Y.
Diamond Edge—Kruse & Slattery Tool & Die Co., Camden, N. J.
Easy, Electric—The Champion Blower & Forge Co., Lancaster, Pa.
Errington—Errington Mechanical Laboratory, New York, N. Y. (auto-opening).
Greenfield Tap & Die Corp., Greenfield, Mass. (Trade names—G. T. D., Green River, Lightning, Little Giant.)
Hardinge Bros., Inc., Chicago, Ill.
Ideal Foundry & Machinery Co., Beaver Falls, Pa.
Landis Machine Co., Waynesboro, Pa.
Moore & Moore, Inc., Reading, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass
National Acme Co., The, Cleveland, O.
Non-Pareil Die Co., The, Camden, N. J.
Oswego Tool Co., The, Oswego, N. Y.
Reliable—Conant & Donelson Co., Conway, Mass.
Reliance—The Foote-Burt Co., Cleveland, O.
Russell Quality—Russell Mfg. Co., The, Greenfield, Mass.
Smith Patent—S. W. Card Mfg. Co., Div of Union Twist Drill Co., Mansfield, Mass.
Thistle—Winter Bros. Co., Wrentham, Mass.
Threadwell Tool Co., The, Greenfield, Mass.
Toledo—Toledo Tap Co., Toledo, O.

DIES, SHEET METAL WORKING.

(See also "Presses and Dies.")
Adriance Machine Works, Brooklyn, N. Y.
American Nut & Bolt Fastener Co., Pittsburgh, Pa.
Baird Machine Co., The, Bridgeport, Conn.
Bliss, F. W., Co., Brooklyn, N. Y.
Ferracute Machine Co., Bridgeton, N. J.
Gem Mfg. Co., Pittsburgh, Pa.
Geuder, Paeschke & Frey Co., Milwaukee, Wis.
Globe Machine & Stamping Co., Cleveland, Ohio.
Grammes, L. F., & Sons, Allentown, Pa.
Heartley Machine, Variety Iron & Tool Works, Toledo, Ohio.
Hoggson & Pettis Mfg. Co., New Haven, Conn.
Keller Mechanical Engineering Corp., Brooklyn, N. Y.
Konigslow, E., Stamping & Tool Works, Cleveland, Ohio.
Lidseen, Gustave, Chicago, Ill.
Michigan Metal Spinning Mfg. Co., Detroit, Mich.
Nelson Tool Co., Inc., New York, N. Y.
Pulte-Korreck Machine Co., Grand Rapids, Mich.
Schatz Mfg. Co., The, Poughkeepsie, N. Y.
Sloan & Chace—Rice Machine Tool Corp., The, Newark, N. J.
Stoll, D. H., Co., Buffalo, N. Y.
Swaine, F. J., Mfg. Co., St. Louis, Mo.
Taylor-Shantz Co., Rochester, N. Y.
Toledo—The Toledo Machine & Tool Co., Toledo, O
Up-to-Date Tool Co., Waltham, Mass.
V & O—The V & O Press Co., Glendale, L. I., N. Y.
Worcester Pressed Steel Co., Worcester, Mass.

DIES, SPRING.

Bay State Tap and Die Co., Mansfield, Mass.
Card, S. W., Mfg. Co., Div. of Union Twist Drill Co., Mansfield, Mass. (Trade names—Favorite, Improved, Paragon.)
G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.
Namco—The National Acme Co., Cleveland, O.

DIES, STAY BOLT.

Consolidated Machine Tool Corp. of America, New York, N. Y.

DIES, SUB-PRESS.

Hoggson & Pettis Mfg. Co., New Haven, Conn.
Nelson Tool Co., Inc., New York, N. Y.
Stoll, D. H., Co., Inc., Buffalo, N. Y.
U. S. Tool Company, Inc., Ampere, N. J.

DIES, THREADING, ENGLISH OR METRIC PITCHES

Bay State—Bay State Tap and Die Co., Mansfield, Mass.
Butterfield & Company Div., Union Twist Drill Co., Derby Line, Vt.
Hardinge Bros., Inc., Chicago, Ill.

DIES, WIRE DRAWING.

Diamond Tool & Die Works, Hartford, Conn.
Konigslow, E., Stamping & Tool Works, Cleveland, Ohio.
Waterbury Wire Die Co., Waterbury, Conn.

DIGGERS, CLAY.

Cleveland Rock Drill Co., The, Cleveland, Ohio.

DIPPERS, COPPER.

Harris, Arthur, & Co., Chicago, Ill.

DISCS, ABRASIVE.

Behr, Herman, & Co., Inc., Brooklyn, N. Y. (Trade names—Adamant, Adamite, Brooklyn, Buffum, Carbicon, Closekote, Empire, Openkote, Ruby.)
Besly, Boxite, Crystox, Titan—Charles H. Besly & Co., Chicago, Ill.
GIA—Gardner Machine Co., Beloit, Wis.
Marathon—Walls Sales Corp., New York, N. Y.
Metalite—Manning Abrasive Co., Inc., Troy, N. Y.
Three-M-ite—Minnesota Mining & Mfg. Co., St. Paul, Minn.
Wausite—Wausau Abrasives Co., Wausau, Wis.

DISCS BIBB.

Algco—Auburn Leather Goods Co., Hartford, Conn.
Canfield, H. O., Co., The, Bridgeport, Conn.
Cincinnati Rubber Mfg. Co., Cincinnati, O.
Goetze Gasket & Packing Co., New Brunswick, N. J.
Indiana Rubber & Insulated Wire Co., Jonesboro, Ind.
Jenkins Bros., New York, N. Y.
New York Belting & Packing Co., New York, N. Y.
United Brass Mfg. Co., Cleveland, O.
Woodward-Wanger Co., Philadelphia, Pa.

DISCS, BRASS AND COPPER.

Ampinco—American Pin Co., Waterbury, Conn.
Anaconda—American Brass Co., Waterbury, Conn.
Bridgeport Brass Co., Bridgeport, Conn.
Capitol Brass Works, Detroit, Mich.
Connecticut Brass & Mfg. Corp., Waterbury, Conn.
Dallas Brass & Copper Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Kelly Valve Co., Muskegon, Mich.
Phoenix Specialty Mfg. Co., New York.
Powell, Wm., Co., Cincinnati, O.
Walworth Company, Boston, Mass.

DISCS, FRICTION.

Rockwood Mfg. Co., The, Indianapolis, Ind.

DISCS, LEATHER

Algco—Auburn Leather Goods Co., Hartford, Conn
Chicago Rawhide Mfg. Co., The, Chicago, Ill.
Excelsior Leather Washer Mfg. Co., Rockford, Ill. "X L."
Graton & Knight Co., Worcester, Mass.
Hess & Hopkins Leather Co., Rockford, Ill.
Leather Parts Co., Indianapolis, Ind.

DISCS, POLISHING.

Willgood Mfg. Co., New York, N. Y.

DISCS, SANDING.

Goodell-Pratt Co., Greenfield, Mass.

DISCS, VALVE.

Algco—Auburn Leather Goods Co., Hartford, Conn.
Belknap Mfg. Co., The, Bridgeport, Conn.
Canfield Rubber Co., The, Bridgeport, Conn.
Canfield, The H. O., Co., Bridgeport, Conn.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Composite—The Wm. Powell Co., Cincinnati, O.
Darcoid—The Darcoid Company, New York, N. Y.
Diamond Rubber Co., Inc., Akron, O. (Trade names—Crescent, Defiance, Equator, Luzerne, Sphinx.)
Dickvalve—R. & J. Dick Co., Inc., Passaic, N. J.
Draper Mfg. Co., The, Port Huron, Mich.
Durabla—Durabla Mfg. Co., New York, N. Y.
Elkhart Rubber Works, Elkhart, Ind.
Goetze Gasket & Packing Co., New Brunswick, N. J.
Goodrich—B. F. Goodrich Co., Akron, O.
Haydenville Co., The, Haydenville, Mass.
Heiland's Graphite—Garrison-Heiland Corp., New York, N. Y.
Indestructible—U. S. Indestructible Gasket Co., Brooklyn, N. Y.
Jenkins—Jenkins Bros., New York, N. Y.
Johns-Pratt Co., Hartford, Conn.
Klingerit Indestructible—Klingerit, Inc., New York, N. Y.
La Favorite Rubber Mfg. Co., Paterson, N. J.
Lone Rock—The Wm. L. McLellan Co., Bridgeport, Conn.
Mechanical Rubber Co., Cleveland, Ohio.
Metallo—Metallo Gasket Co., New Brunswick, N. J.
New York Belting & Packing Co., New York. (Trade names—Guaranteed, Oil King.)
Nichols Perfection—Fred Y. Nichols, Chicago, Ill.
O. I. Co.—Ohio Injector Co., Wadsworth, O.
Pittsburgh Valve & Fittings Co., Barberton, O.
Powell, Wm. Co., The, Cincinnati, O.
Rhoads, J. E., & Sons, Philadelphia, Pa. (leather).
Scioto—Cincinnati Rubber Mfg. Co., Cincinnati, O.
Steam Economy Co., Chicago, Ill.
United States Rubber Co., New York, N. Y.
Walworth Company, Boston, Mass.
Western Rubber Co., Goshen, Ind.
White Star—The Wm. Powell Co., Cincinnati, O.

DISPENSERS, GREASE AND OIL.

Marvel—Republic Steel Package Co., Cleveland, O.

DIVIDERS.

Athol Machine & Foundry Co., Athol, Mass.
Brown & Sharpe Mfg. Co., Bridgeport, Conn.
Excelsior—Wm. Schollhorn Co., New Haven, Conn.
Goodell-Pratt Co., Greenfield, Mass.
Indicating Calipers Co., New York, N. Y.
Johnson, Wm., Firm of, Newark, N. J. (Cook's Pattern Expansion Wing, etc.)
Lufkin Rule Co., The, Saginaw, Mich.
Peck, Stow & Wilcox Co., Southington, Conn.
Union Tool Co., Orange, Mass.

DOGS AND HOOKS, BENCH.

Christiansen, C., Chicago, Ill.

DOGS, CHAIN.

Krein Chain Co., Wapakoneta, O.
Taylor, S. G., Chain Co., Chicago, Ill.

DOGS, CLAMP.

B & S—The Billings & Spencer Co., Hartford, Conn.
Le Count, W. G., Tool Works, South Norwalk, Conn.

DOGS, GRINDER.

Red-E—The Ready Tool Co., Bridgeport, Conn.

DOGS, DIE.

B. & S.—The Billings & Spencer Co., Hartford, Conn.

DOGS, LATHE.

Armstrong—Armstrong Bros. Tool Co., Chicago, Ill. (Drop forged steel.)
Besly, Chas. H., & Co., Chicago, Ill.
Billings—Billings & Spencer Co., Hartford, Conn.
Champion—Western Tool & Mfg. Co., Springfield, O.
Goodell-Pratt Co., Greenfield, Mass.
Hill—The Ready Tool Co., Bridgeport, Conn.
Indispensable—Bonney Forge & Tool Works, Allentown, Pa.
Lecount Pattern—Collmer Bros., South Bend, Ind.
Le Count—W. G. Le Count Tool Works, South Norwalk, Conn.
Lutz—Lutz Co., Inc., Philadelphia, Pa.
Niles-Bement-Pond Co., New York, N. Y.
Ready Tool Co., The, Bridgeport, Conn. (Trade names—Hill, Red-E.)
Safety—Elmer J. Michaud, Willimantic, Conn.
Safety—West Steel Casting Co., The., Cleveland, O.
Springfield Machine Tool Co., Springfield, O.
Union Tool Co., Orange, Mass.
Vulcan-Safety—J. H. Williams & Co., Buffalo, N. Y.
Westcott Chuck Co., Oneida, N. Y.
Western Tool & Mfg. Co., The, Springfield, O.
Williams, J. H., & Co., Buffalo, N. Y.

DOGS, MILLING MACHINE.

Ready Tool Co., The, Bridgeport, Conn. (Trade names—Hill, Red-E.)
Vulcan—J. H. Williams & Co., Buffalo, N. Y.

DOGS, SAWMILL.

Amerian Sawmill Machinery Co., Hackettstown, N. J. (Trade names—Ajax, American, Giant, Champion.)
Hill-Curtis Co., Kalamazoo, Mich.
Knight—The Sinker-Davis Co., Indianapolis, Ind.
Multnomah Iron Works, Portland, Ore.
Scarbrough Mfg. Co., Chattanooga, Tenn.
Wheland—The Wheland Co., Chattanooga, Tenn.

DOGS, TIMBER.

New England Bolt Co., Inc., Everett, Mass.
Newhall Chain Forge & Iron Co., New York, N. Y.

DOLLIES.

Lawson—Menasha Wood Split Pulley Co., Menasha, Wis.
Manley—The Manley Mfg. Co., York, Pa.

DOLLIES, CONTRACTORS'.

Clark, George P., Co., The, Windsor Locks, Conn.
Clyde Iron Works, Duluth, Minn.
Dixie Logging Tool Co., Chattanooga, Tenn.
Electric—Electric Wheel Co., Quincy, Ill.
Lansing Co., Lansing, Mich.
Lawson—Menasha Wood Split Pulley Co., Menasha, Wis.
Parker, S. E., Chicago, Ill.
Tu Ton—The Hamilton Caster & Mfg. Co., Hamilton, O.

DOLLIES, RIVETING.

Duffy Manufacturing Co., Chicago, Ill.

DOOR OPENER AND CLOSER.

Ernst—Chas. K. Ernst, Buffalo, N. Y.
R-W Stewart—Richards-Wilcox **Mfg. Co., Aurora,** Ill.

DOORS, ASH PIT AND FURNACE.

Adams—The Adams Co., Dubuque, Iowa.
Barber Mfg. Co., The, Ashtabula, O.
Blaw-Knox—Blaw-Knox Co., Pittsburgh, Pa.
Budd—Budd Grate Co., Philadelphia, Pa.
Canton Foundry & Machine Co., Canton, O.
Codd, E. J., Co., Baltimore, Md.
De Luxe—United Conveyor Corporation, Chicago, Ill.
Indiana Foundry Co., Indiana, Pa.
Lanz, M., Bolt Co., Pittsburgh, Pa.
Rock Island Mfg. Co., Rock Island, Ill.
Sanitary Company of America, Linfield, Pa.
Smith-Matthews Foundry Co., Detroit, Mich.

DOORS, FIRE, AND FIRE DOOR HARDWARE.

Richards-Wilcox Mfg. Co., Aurora, Ill.

DOORS, SHOWER STALL.

C. & S.—Crist & Schilken Co., Inc., Pittsburgh, Pa.
Eisele, Louis F., & Son, Philadelphia, Pa..
Hajoca Corporation, Philadelphia, Pa.
Lehnert & Co., New York, N. Y.

DOWELS, BRASS AND WOOD.

Davis & Hemphill, Elkridge, Md.
Estes, E. B., & Sons, New York, N. Y.
Everett, A., & Son, Auburn, N. Y.
Knight, H. W., & Son, Seneca Falls, N. Y. (brass only).
Master—The Kindt-Collins Co., Cleveland, O. (Brass.)
Novelty Turning Co., Norway, Me.
Perfect—The Dunker Supply Co., Canton, O.
Rowe, Henry, Mfg. Co., Newaygo, Mich.
Shanafelt Mfg. Co., Canton, O.
Stiles & Co., H. A., Boston, Mass.
T. & C.—Timmis & Clissold, Bound Brook, N. J.
Vandegrift & Morris, Shelbyville, Ind.

DOWN SPOUTS OR CONDUCTOR PIPE, CAST IRON.

Clow, James B., & Sons, Chicago, Ill.

DRAIN BOARDS, COPPER AND NICKEL SILVER.

Albuco—Alan R. H. Burk Mfg. Co., Philadelphia, Pa.
Badger, E. B., & Sons, Co., Boston, Mass.
Bastian-Blessing Co., Chicago, Ill.
Elkay Mfg. Co., Chicago, Ill.
Litterer Bros. Mfg. Co., Chicago, Ill.
Manhattan—John Trageser Steam Copper Works, New York, N. Y.
Mott, J. L., Iron Works, Trenton, N. J.

DRAINBOARDS, GALVANIZED.

Greason Mfg. Co., New York, N. Y.

DRAINBOARDS, PETRIUM.

Petrium Sanitary Sink Co., Berkeley, Cal.

DRAINBOARDS, PORCELAIN ENAMELED.

Barnes Mfg. Co., The, Mansfield, O.
Columbia Sanitary Co., Louisville, Ky.
Crane Co., Chicago, Ill.
I. X. L. Pump & Mfg. Co., Inc., Philadelphia, Pa.
Iron City Sanitary Mfg. Co., Pittsburgh, Pa.
Jones Hollow Ware Co., Baltimore, Md.
Kohler Co., Kohler, Wis.
United States Sanitary Mfg. Co., Pittsburgh, Pa (Trade names—Alco, Anglo, Minerva.)
Mott, J. L., Iron Works, Trenton, N. J.
National Sanitary Co., Salem, O.
Rundle Mfg. Co., Milwaukee, Wis.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Union Sanitary Works, Noblesville, Ind.
Weiskittel, A., & Son, Baltimore, Md.
White Beauty—The Humphreys Mfg. Co., Mansfield, Ohio.

DRAINBOARDS, VITREOUS CHINA.

Ford's Porcelain Works, Inc., Perth Amboy, N. J.
Maddock's Sons Co., The, Thomas, Trenton, N. J.

DRAINBOARDS, WOOD.

Becker Mfg. Co., The, Marietta, O.
Beneke Mfg. Co., Chicago, Ill.
Berglas, M. P., Mfg. Co., Brooklyn, N. Y.
Eichman, J. C., Mfg. Co., Baltimore, Md.
Furlong, Thos. N., San Francisco, Cal.
Knott Mfg. Co., Tell City, Ind.
Leclaire Cabinet Works, Edwardsville, Ill.
Petrium Sanitary Sink Co., Berkeley, Cal.
Plumbers Woodwork Co., Algoma, Wis.
Shwab Bros. Co., New York, N. Y.
United States Sanitary Mfg. Co., Pittsburgh, Pa.
Van Arnam Mfg. Co., Fort Wayne, Ind. (Trade names—Van Ar Co, Van Arnam.)

DRAINERS, BARREL.

Rose, Frank, Mfg. Co., Hastings, Neb.

DRAINERS, CELLAR OR PIT, AUTOMATIC.

Advance Ideal—J. A. Zurn Mfg. Co., Erie, Pa.
Aurora Pump Company, Aurora, Ill.
Blakeslee Mfg. Co., DuQuoin, Ill.
Braender Cellar Drainer Co., New York, N. Y.
Chicago Pump Co., Chicago, Ill.
Climax—Otto Bernz Co., Inc., Newark, N. J.
Climax—C. M. Kemp Mfg. Co., Baltimore, Md
Economy Pumping Machinery Co., Chicago, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hill—Hill Pump & Turbine Works, Anderson, Ind.
IXL Pump & Mfg. Co., The, Philadelphia, Pa.
Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Labaw, L. R. H., & Co., Belle Meade, N. J.
Lawler's Automatic—Lawler Waterfeed & Damper Co., Mount Vernon, N. Y.
Newark Brass Works, Newark N. J. (non-automatic).
O S—The Gibson-Schlemmer Co., Cincinnati, O.
Penberthy—Penberthy Injector Co., Detroit, Mich.
Roth Bros. Co., Chicago, Ill.
Savill—Thomas Savill's Sons, Philadelphia, Pa.
Sherwood Mfg. Co., Buffalo, N. Y.
Sturm—Fries & Co., Buffalo, N. Y.
Taber Pump Co., Buffalo, N. Y.
Wade—Wade Iron Sanitary Mfg. Co., Chicago, Ill.
Yeomans—Yeomans Bros., Chicago, Ill.

DRAINERS, WASHING MACHINE.

Penberthy—Penberthy Injector Co., Detroit, Mich.
Sipho Products Corp., Boston, Mass.

DRAINS, FLOOR AND TRAP COMBINED.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American Foundry & Mfg. Co., St. Louis, Mo. (Trade names—American Seep Proof, Government, Royal, Sando, S. S.)
Atchison Specialty Mfg. Co., Atchison, Kans. "Asco."
Blake Specialty Co., Rock Island, Ill.
Boosey—Greenwood Mfg. Co., Detroit, Mich.
Brayman Drain Co., New York, N. Y.
Central Specialty Co., Detroit, Mich.
Columbus Brass Co., Columbus, O.
Deep Seal—R. Estabrook's Sons, Boston, Mass.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
Donovan, John J., Boston, Mass.
Donovan—Sanitas Mfg. Co., Boston, Mass.
East Penn Foundry Co., Macungie, Pa.
Eclipse—John C. Kupferle Foundry Co., St. Louis, Mo.
Fee & Mason Mfg. Co., New York, N. Y.
Foley—Hays Mfg. Co., Erie, Pa.
Fries & Co., Buffalo, N. Y.
Glenn Mfg. Co., St. Charles, Ill.
Gulf States Pipe Corp., Anniston, Ala.
Hammond Iron Corp., Birmingham, Ala.
J. R. S. Specialties Mfg. Co., Inc., The, New York, N. Y.
Josam Mfg. Co., Michigan City, Ind.
Johnson, J. D., Co., Philadelphia, Pa. (Trade names—Johnson, Lynn, Ronjo, Saxon.)
M. I. W.—Modern Iron Works, Quincy, Ill.
Martin, Ft. Wayne, Ind.
Nunn Brass Works, Rochester, N. Y.
Prier Brass Mfg. Co., Kansas City, Mo.
Red Top—Q-S Sanitary Mfg. Co., Waterloo, Iowa.
Reading Foundry & Supply Co., Reading, Pa.
Sanitary—Modern Iron Works, Quincy, Ill.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Signet—Crampton-Farley Brass Co., Kansas City,
Speakman Co., Wilmington, Del.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Swett, A. L., Iron Works, Medina, N. Y.
Wade Iron Sanitary Mfg. Co., Chicago, Ill.
Wizard Mfg. Co., Chicago, Ill.
Wolverine Foundry Co., Detroit, Mich.

DRAINS, REFRIGERATOR.

(See "Traps and Drains, Refrigerator.")

DRAINS, ROOF.

American Foundry & Mfg. Co., St. Louis, Mo.
Boosey—Greenwood Mfg. Co., Detroit, Mich.
Clarksville Foundry & Machine Works, Clarksville, Tenn.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
Josam Mfg. Co., Michigan City, Ind.
J. R. S. Specialties Mfg. Co., Inc., The, New York, N. Y.
Stringer Bros. Co., Chicago, Ill.
Testite—Groeniger Mfg. Co., Columbus, O.

DRAINS, SHOWER STALL.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
Atkinson Co., Rochester, N. Y.
Blake Specialty Co., Rock Island, Ill.
Boosey—Greenwood Mfg. Co., Detroit, Mich.
Central Specialty Co., Detroit, Mich.
Clow, Jas. B., & Sons, Chicago, Ill.
Colonial Foundry & Machine Works, Boston, Mass.
Columbia—Speakman Co., Wilmington, Del.
Columbus Brass Co., Columbus, O.
Crampton-Farley Brass Co., Kansas City, Mo.
Crane Co., Chicago, Ill.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
Dent Hardware Co., Bangor, Pa.
Douglas, John. Co., Cincinnati, O.
Edwardsville Brass Works, Edwardsville, Ill.
Federal-Huber Co., Chicago, Ill.
Fee & Mason Mfg. Co., New York City.
Fries & Co., Buffalo, N. Y.
Glenn Mfg. Co., St. Charles, Ill.
Goetz Brass Co., Chicago, Ill.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Johnson Co., Inc., J. D., Philadelphia, Pa.
Josam Mfg. Co., Michigan City, Ind.
Kokomo Brass Works, Kokomo, Ind.
Kupferle, John C., Foundry Co., St. Louis, Mo.
Lehnert & Co., New York, N. Y.
Martin, Fort Wayne, Ind.
Marvel—Detroit Marvel Brass Mfg. Co., Detroit, Mich.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Milwaukee Flush Valve Co., Milwaukee, Wis.
Nunn Brass Works, Rochester, N. Y.
Peck Bros. & Co., New Haven, Conn
Phoenix Brass Foundry, Irvington, N. J
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Prier Brass Mfg. Co., Kansas City, Mo.
Richmond Foundry & Mfg. Co., Inc., Richmond, Va.
Rundle-Spence Mfg. Co., Milwaukee, Wis.
Saaco—Sanitary Company of America, Linfield, Pa.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Salem Brass & Iron Mfg. Co., Bridgeton, N. J.
Seattle Brass Co., Seattle, Wash.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Swett, A. L., Iron Works, Medina, N. Y.

Vincent Huntington Emery Wheel Dressers

and Cutters (milled only) have been the standard of comparison for many years. Every Size and Type.

Vincent "AA" Hardened High Speed Tool Bits

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Heat Treaters and Tool Manufacturers

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Testite—Groeniger Mfg. Co., Columbus, O.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
Victor Brass Mfg. Co., Cleveland, O.
Wade Iron Sanitary Mfg. Co., Chicago, Ill.
Wolff Mfg. Corp., Chicago, Ill.

DRAWERS, BENCH.

Lupton—David Lupton's Sons Co., Philadelphia, Pa.
Lyon Metallic Mfg. Co., Aurora, Ill.
Meeco—Manufacturing Equipment & Engineering Co., Framingham, Mass.
New Britain Machine Co., New Britain, Conn.
Pollard Bros. Mfg. Co., Inc., Chicago, Ill.

DRESSERS, BIBB SEAT.

Ajax—Ajax Mfg. Co., Pittsburgh, Pa.
Bernz, Otto, Co., Newark, N. J.
Clayton & Lambert Mfg. Co., Detroit, Mich.
Feather Mercury Gauge Mfg. Co., Bloomfield, N. J.
Frank Bros., New York, N. Y.
Good—Good Mfg. Co., Inc., New York, N. Y.
Johnson, Wm., Firm of, Newark, N. J.
Skinner—M. B. Skinner Co., Chicago, Ill.

DRESSERS, COMMUTATOR.

(See "Stones, Commutator Smoothing.")

DRESSERS, DIAMOND.

Myers, W. F., Co., Inc., Bedford, Ind.

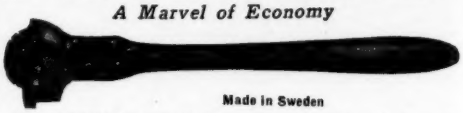
DRESSERS AND CUTTERS, GRINDING WHEEL.

Abrasive Company, Philadelphia, Pa.
Acme Diamond Tool Co., New York.
American Emery Wheel Co., Providence, R. I.
American—American Grinder Mfg. Co., Milwaukee, Wis.
Bennett—Bay State Stamping Co., Worcester, Mass.
Braunsdorf-Mueller Co., Elizabeth, N. J.
Brisben-Duplex—Cleveland Flue Cleaner Mfg. Co., Cleveland, Ohio.
Bur-Nor—Burgess-Norton Mfg. Co., Geneva, Ill.
Calder, George H., Lancaster, Pa.
Challenge Machine Co., Philadelphia, Pa. (Trade names—Huntington, Gardi, Gruva, Truedge.)
Champion—Western Tool & Mfg. Co., Springfield, O.
Chicago Wheel & Mfg. Co., Chicago, Ill.
Collmer—Collmer Bros., South Bend, Ind.
Craft's—Arthur A. Crafts & Co., Boston, Mass.
Crown—Clizbe Bros. Mfg. Co., Plymouth, Ind.
Curtin-Hebert Co., Inc., Gloversville, N. Y. (Trade names—Regular Huntington, Crescent, Foundry, Paragon.)
Diamond Drill Carbon Co., The, New York, N. Y.
Diamond—Diamond Saw & Stamping Co., Buffalo, N. Y.
Dickinson—Thos. L. Dickinson, New York, N. Y.
Giddings & Lewis Machine Tool Co., Fond du Lac, Wis.
Grammes & Sons, L. F., Allentown, Pa.
Huntington—Detroit Screw Works, Detroit, Mich.
Huntington—The Chicago Screw Co., Chicago, Ill.
Huntington—Collmer Bros., South Bend, Ind.
Huntington Pattern—Victor Products Corp., Chicago, Ill.
Metcalf—Machinery Company of America, Big Rapids, Mich.
Norton—Collmer Bros., South Bend, Ind.
Norton—Norton Co., Worcester, Mass.
Pittsburgh Grinding Wheel Co., Rochester, Pa.
Precision—The Precision Truing Mach. & Tool Co., Cincinnati, O.
Reed—Reed Mfg. Co., Erie, Pa.
Rearwin's—Quadriga Mfg. Co., Chicago, Ill.
Robson Mfg. Co., Galesburg, Ill.

The "VERITAS" Wheel Dresser

Safe - Simple - Effective - Easily Renewable

A Marvel of Economy



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The VERITAS Wheel Dresser completely embodies all the advantages for dressing and truing up emery, carborundum and all grinding wheels. The roll consists of hardened steel plates with U-shaped teeth, which keep their sharpness until worn out. Shaft is provided with a lubricator cap.

SCANDINAVIAN WESTERN IMPORTING CO., Ltd.
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Red Ripper—Ross Mfg. Co., Cleveland, Ohio.
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Standard Redresser—Keystone Grinder & Mfg. Co., Pittsburgh, Pa.
Sterling—Diamond Saw & Stamping Works, Buffalo, N. Y.
Veritas—Scandinavian Western Importing Co., Ltd., New York, N. Y.
Victor Products Corp., Chicago, Ill.
Vincent Steel Process Co., The, Detroit, Mich.
Wrigley's—The Thos. Wrigley Co., Chicago, Ill.
Warren Safety, Huntington—Warren Axe & Tool Co., Warren, Pa.

DRESSERS, PLUMBERS'.

Bernz, Otto, Co., Newark, N. J.
Johnson, Wm., Firm of, Newark, N. J.
National Tool Co., New York, N. Y.
W. W.—Woodward-Wanger Co., Philadelphia, Pa.

DRESSING, BELT, BAR.

Acme—Acme Mfg. Co., The, Cleveland, O.
Alexander—Alexander Bros., Inc., Philadelphia, Pa.
Allen, W. D. Allen Mfg. Co., Chicago, Ill.
Apex—W. H. Salisbury & Co., Inc., Chicago, Ill.
Atlantic—Atlantic Mfg. Co., Wilmington, Del.
Belt Wax—F. Raniville Co., Grand Rapids, Mich.
Beltex Gripstick—Chicago Belting Co., Chicago, Ill.
Beltine—Jos. C. Paulus & Co., Philadelphia, Pa.
Blaxstick—Main Belting Co., Philadelphia, Pa.
Blue Ribbon—The Jobbers' Mfg. Co., Chicago, Ill.
Bond—Charles Bond Co., Philadelphia, Pa.
Boyer—The Boyer Chemical Laboratory Co., Chicago, Ill.
Bradford Stick—Bradford Belting Co., Cincinnati, O.
Buffalo—Buffalo Belt Dressing Co., Buffalo, N. Y.
Burrell Belting Co., Chicago, Ill.
Central Belting Co., New York, N. Y.
Cantol Belt Wax—E. C. Atkins & Co., Inc., Indianapolis, Ind.
Corliss—Corliss Supply & Mfg. Co., St. Louis, Mo.
Detroit Oak Belting Co., Detroit, Mich.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Do-Ro—Doermann-Roehrer Co., Cincinnati, O.
Doublegrip—Jerry Bros. Belting Co., Richmond, Va.
Eagle Counter & Leather Co., The, Cincinnati, O.
Eclipse Specialty Mfg. Co., Chicago, Ill.
Economy—Baltimore Belting Co., Baltimore.

WE WANT JOBBERS

Guaranteed to contain no rosin

WIZARD (Stick) Belt Dressing

is sold exclusively through jobbers!

Our system of advertising for our jobbers gets the orders.

Sales guaranteed—Write for our proposition.

RICHMOND BELT DRESSING MFG. CO., Inc.
Richmond, Va.

"ECLIPSE" SPECIALTIES ARE STANDARD

★ECLIPSE★
Best Belt Dressing

A dressing of the finest quality. On the market for over 25 years. Prevents slipping and prolongs life of the belt. One pound bars—a dozen to a carton.

Other "ECLIPSE" Specialties

Liquid Belt Dressing in pints, quarts, gallons and barrels. For leather, rubber and canvas belts.

Belt Cement **Pulley Covering Cement**

Composition Wire Belt Lacing

All "Eclipse" Specialties may be stocked under your own house label at no additional cost. Write for prices.

Eclipse Specialty Mfg. Co., 4531 Ravenswood Ave., Chicago

Graton & Knight Co., Worcester, Mass. "Star Bar."
Green Seal—Phoenix Oil Co., Cleveland, O.
Hercules Belt Lace Co., Waukegan, Ill.
Handy Bar—Crescent Belt Fastener Co., Inc., New York, N. Y.
Hudson—Hudson Belting Co., Worcester, Mass.
Ironsides—The Ironsides Co., Columbus, O.
I X L—W. J. Kramer Oil Co., Milwaukee, Wis.
Kant Slip—Kant Slip Mfg. Co., Chicago, Ill.
Kelly Graphite Mills, New York, N. Y.
Leatherene—S. W. Davis Oil Co., Providence, R. I.
Matchless—Albion Mfg. Co., Seattle, Wash.
Mechanical Rubber Co., The, Cleveland, Ohio.
Ne-Pac—Capen Belting & Rubber Co., St. Louis, Mo.
Neverslip—White & Bagley Co., The, Worcester, Mass.
NorStar—North Star Chemical Works, Inc., Lawrence, Mass.
Noxall—Eagle Belting Co., Chicago, Ill.
Oleum Products Co., Scranton, Pa. "Tackoleum."
Phoenix—New York Leather Belting Co., New York.
Polar Bar—The Geo. W. Southwick Co., New York.
Ponemah—The Ulmer Leather Co., Norwich, Conn.
Pulmor—Pulmor Belt Mfg. Co., Fort Wayne, Ind.
Rahmann's Triumph—Geo. Rahmann & Co., New York, N. Y.
Rhoads Stick, Rhoads Belt Preserver—J. E. Rhoads & Sons, Philadelphia, Pa.
Ruboil—Ruboil Belting Co., Philadelphia, Pa.
Smiro—Smith & Robinson, Chicago, Ill.
Star—Chesapeake Belting Co., Baltimore, Md.
Stephenson—Stephenson Mfg. Co., Albany, N. Y.
Success Belt Stick—Success Novelty Co., The, Richmond, Va.
Superior Flake Graphite Co., Chicago, Ill. "Superflake."
United States Rubber Co., New York, N. Y.
Victor Balata & Textile Belting Co., New York, N. Y.
Wizard—Richmond Belt Dressing Mfg. Co., Inc., Richmond, Va.
Zebra—Cling Surface Co., Buffalo, N. Y.

DRESSING, BELT, LIQUID AND PASTE.

Acme—Acme Mfg. Co., The, Cleveland, O.
Acme—The Akron Belting Co., Akron, O.
Agramid Products Corp., College Point, N. Y.
Allen, W. D., Mfg. Co., Chicago, Ill. (Trade names—Ajax [oil], Magic, Pease, Red Cross.)
Amber—Eagle Belting Co., Chicago, Ill.
Amoilco—American Oil Corp., Jackson, Mich.
Anti-Friction Belt Dressing Co., Baltimore, Md.
Anti-Slip—Geo. Callahan & Co., New York.
Apex—W. H. Salisbury & Co., Inc., Chicago, Ill.
Atlantic—Atlantic Mfg. Co., Wilmington, Del.
Balata—Victor-Balata & Textile Belting Co., New York, N. Y.
Baltobelt—Baltimore Belting Co., Baltimore, Md.
Banner—The Cortland Specialty Co., Cortland, N. Y.
Belt Life—Atlantic Paint Co., New York, N. Y.
Beltex—Chicago Belting Co., Chicago.
Beltine—Jos. C. Paulus & Co., Philadelphia, Pa.
Belt-Oil—E. R. Senn & Co., New York, N. Y.
Blue Ribbon—The Jobbers' Mfg. Co., Chicago, Ill.
Bond—Charles Bond Co., Philadelphia, Pa.
Buckeye—Buckeye Belting & Supply Co., Cleveland, O.
Buffalo—Buffalo Belting Works, Buffalo, N. Y.
Buffalo Belt Dressing Co., Buffalo, N. Y. "Bison," "Nulife."
Bull Dog—Indian Refining Co., Inc., New York.
Cantol Belt Wax—E. C. Atkins & Co., Indianapolis, Ind.
Castorol—A. W. Chesterton Co., Boston, Mass.
Charter—N. Palmer & Co., Bridgeport, Conn.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Clean Quality—Charlotte Leather Belting Co., Charlotte, N. C.
Cling-Surface—Cling-Surface Co., Buffalo, N. Y. (semi-liquid).
Clarol, Larol, Tenol, Traher—Viscol Co., East Cambridge, Mass.
Cochegan, Mohawk—The Ulmer Leather Co., Norwich, Conn.
Cracker Jack—Manufacturers' Belt Hook Co., Chicago, Ill.
Crown Belt Food—The Lino Paint Co., Cleveland, Ohio.
Do-Ro—Doermann-Roehrer Co., Cincinnati, O.
Doublegrip—Jerry Bros. Belting Co., Richmond, Va.
Dubitana—Meier-Andres Belting Co., Newark, N. J.
Duck—Main Belting Co., Philadelphia, Pa.
Eagle Counter & Leather Co., Cincinnati, O.
Eagleine—Eagle Oil & Supply Co., Boston.
Ease-on—Mount Vernon Belting Co., Baltimore, Md.
Eclipse—Eclipse Pulley Covering Co., Chicago, Ill.
Eclipse Specialty Mfg. Co., Chicago, Ill.
Ensign Refining Co., Cleveland, O.
Erusa—Cling-Surface Co., Buffalo, N. Y.
Eureka—Standard Oil Co. of New York, New York, N. Y.
Excelsior—A. W. Chesterton Co., Boston, Mass.
Excelsior—F. Raniville Co., Grand Rapids, Mich.
Federal—Federal Belting Co., Baltimore, Md.
Federal—Federal Graphite Mills, Cleveland, O.
Flexite—Burr Oak Belting Co., Cincinnati, O.
Frontier—Frontier Mfg. Co., North Tonawanda, N. Y.
Gandy—The Gandy Belting Co., Baltimore, Md.
Graton & Knight Mfg. Co., Worcester, Mass. "Royal Worcester."
German—Widdicomb-Reid Co., Vestaburg, Mich.
Great Western Oil Co., The, Cleveland, O.
Green Seal—Phoenix Oil Co., The, Cleveland, O.
Gripene—The Geo. W. Southwick Co., New York.
Grip-Tite—Grip-Tite Co., New Brunswick, N. J.
Han-Dee—Duryea Mfg. Co., Bayonne, N. J.
Harris—A. W. Harris Oil Co., Providence, R. I.
Hasco Products Co., Springfield, Mass.
H. B.—Fenwick-Reddaway Mfg. Co., Newark, N. J.
Hercules Belt Lace Co., Waukegan, Ill.
Hippo—Reed & Duecker, Memphis, Tenn.
Holtite—New York Lubricating Oil Co., New York, N. Y.
Holyoke Belt Oil—Holyoke Belting Co., Holyoke, Mass.
Hosmers—G. A. Hosmer Co., Buffalo, N. Y.
Houghton's—E. F. Houghton Co., Philadelphia, Pa
Hoyt—Edward R. Ladew Co., Inc., New York, N. Y.
Hug-it—Hinds & Coon, Boston, Mass.

PULMOR BELT DRESSING

Pulmor will positively remove oil and grease from leather belts.

Pulmor preserves the belt, stops slipping, increases horse power and overcomes troubles caused by belts stretching and shrinking in wet and dry weather.

Pulmor is guaranteed not to contain rosin or any other ingredients injurious to leather.

Made in solid, liquid and paste form for leather, rubber and cotton belts. We also manufacture leather belting, belt cements and other belt specialties. A money making line for distributors.

PULMOR BELT MANUFACTURING CO.
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Ideal—Akron Belting Co., The, Akron, O.
India—A. W. Chesterton Co., Boston, Mass.
Ironsides Company, Columbus, Ohio.
I. X. L.—W. J. Kramer Oil Co., Milwaukee, Wis.
Jewell—Jewell Belting Co., Hartford, Conn.
Just Right—C. H. Ellert Mfg. Co., Evansville, Ind.
Leather Liniment—Olmsted-Flint Corp., Cambridge, Mass.
Lightning Mfg. Co., Philadelphia, Pa.
"M"—Moloney Belting Co., Chicago, Ill.
McLeod Leather & Belting Co., Greensboro, N. C.
Magic Leather Treatment Co., Detroit, Michigan.
Matchless—Albion Mfg. Co., Seattle, Wash.
Maxtic Belt & Packing Co., Wellesley Hills, Mass. (Trade names—"Maxtic" for leather belts, "Maxtic Powerizer" for rubber belts.)
Mechanical Rubber Co., The, Cleveland, Ohio.
Monarch—The Bradford Belting Co., Cincinnati, O.
Mystic—The Ulmer Leather Co., Norwich, Conn.
National Leather Preservative Co., Chicago, Ill.
Ne-Pac—Capen Belting & Rubber Co., St. Louis, Mo.
New Life—Chicago Rawhide Co., The, Chicago, Ill.
Number One—Hudson Belting Co., Worcester, Mass.
Oleum Products Co., Scranton, Pa. "Tackoleum," "Oleum."
Oxoilox—The F. S. Walton Co., Philadelphia, Pa.
Page Belting Co., Concord, N. H.
Patterson Lubricating Co., Boston, Mass.
Plomo—The Plomo Specialty Mfg. Co., Cleveland, O.
Protection Products, Inc., Kalamazoo, Mich. "Protection."
Pulmor—Pulmor Belt Mfg. Co., Fort Wayne, Ind.
Rahman's Triumph—Geo. Rahmann & Co., New York.
Raniville, F., Co., Grand Rapids, Mich. (Trade names Belt Surfacer, Cleanser and Stuffer, Curriers Dubbing, Excelsior, Raniville's Rubber Coating.)
Red Dragon—Chemical & Engineering Co., Watertown, N. Y.
Reinhold Belting & Strap Co., Brooklyn, N. Y.
Renulife—Tropical Paint & Oil Co., Cleveland, O.
Rhoads Belt Preserver—J. E. Rhoads & Sons, Philadelphia, Pa.
Royal—Manufacturers Oil & Grease Co., Cleveland, O.
Royal Stag—United Belt Mfg. Co., St. Louis, Mo.
Ruboil—Ruboil Belting Co., Philadelphia, Pa.
Sabre, Shield—McCauley Belting Co., Chicago, Ill.
Schieren's Beltfiller—Chas. A. Schieren Co., New York.
Schieren's Fly-Foot—Chas. A. Schieren Co., New York.
Sero—Sero Specialty Co., Cleveland, O.
Signet Belt Oil—Russia Cement Co., Gloucester, Mass
Smiro—Smith & Robinson, Chicago, Ill.
Star—The Chesapeake Belting Co., Baltimore, Md.
Stephenson—Stephenson Mfg. Co., Albany, N. Y.
Swiss—S. W. Davis Oil Co., Providence, R. I.
Tanners' Dublin—Corliss Supply & Mfg. Co., St. Louis, Mo.
309—Ensign Refining Co., The, Cleveland, O.
Texaco—Texas Co., The, New York, N. Y.
Theanoil Mfg. Co., Philadelphia, Pa.
Twentieth Century—Bayerson Oil Works, Erie, Pa.
United States Rubber Co., New York, N. Y.
Universal Belt Oil—Burrell Belting Co., Chicago, Ill.
Victor Balata & Textile Belting Co., New York, N. Y.
Victor—New York Leather Belting Co., New York.
Warren—Warren Belting Co., Worcester, Mass.
Webb Belting Co., Kansas City, Mo. (Trade names—Pilot, Slip-Knot.)
Wooster—Duryea Mfg. Co., Bayonne, N. J.
World Neverslip—The World Refining Co., Easton, Pa.
X-L-N-C—Commercial Chemical Co., Boston, Mass.

DRESSING, ROPE DRIVE.

Acme—The Acme Mfg. Co., Cleveland, O.
American Specialty Mfg. Co., Cleveland, O.
Albion—Albion Mfg. Co., Seattle, Wash.
Blue Ribbon—The Jobbers' Mfg. Co., Chicago, Ill.
Cling-Surface—Cling-Surface Co., Buffalo, N. Y.
Dodge Mfg. Corp., Mishawaka, Ind. "Firmus," "AA-A1."
Ensign Refining Co., The, Cleveland, O.
Hercules—Hercules Belt Lace Co., Waukegan, Ill.
Indian Refining Co., Inc., New York.
Ironsides—The Ironsides Co., Columbus, O.
Lambeth, Anti-Fraying Compound—Lambeth Rope Corp., New Bedford, Mass.
Link-Belt Company, Chicago and Philadelphia.
Ohio—The Ohio Grease Co., Loudonville, O.
Plomo—Plomo Specialty Mfg. Co., Cleveland, O.
Raniville Co., F., Grand Rapids, Mich.
Sero—Sero Specialty Co., Cleveland, Ohio.
Stephenson—Stephenson Mfg. Co., Albany, N. Y.

DRESSING AND LUBRICANTS, WIRE ROPE.

Acme—Acme Mfg. Co., The, Cleveland, O.
Blue Ribbon—The Jobbers' Mfg. Co., Chicago, Ill.
Cling-Surface—Cling-Surface Company, Buffalo, N. Y.
Great Western Oil Co., The, Cleveland, O.
Ironsides—The Ironsides Co., Columbus, O.
Macwhyte Company, Kenosha, Wis.
Ohio—Ohio Grease Co., Loudonville, O.
Plomo—Plomo Specialty Mfg. Co., Cleveland, O.
Raniville Co., F., Grand Rapids, Mich.
Stephenson—Stephenson Mfg. Co., Albany, N. Y.
Moore Oil Refining Co., The, Cincinnati, O.
Wire Rope Lubricant Co., Trenton, N. J. Lubricator, Plumbago, Grease, Protector, Elevator Rope Compound and Tramway Rope Lubricant.)

DRILL DRIFTS.

Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., Hartford, Conn.
Whitman Barnes-Detroit Corp., Detroit, Mich.

DRILL POINTS.

Goodell-Pratt Co., Greenfield, Mass.
North Bros. Mfg. Co., Philadelphia, Pa.

DRILL SPEEDERS.

Graham—The Graham Mfg. Co., Providence, R. I.

DRILLERS, OIL AND GAS WELL.

Armstrong—Armstrong Mfg. Co., Waterloo, Iowa.
Cyclone—Sanderson-Cyclone Drill Co., Orrville, O.
Keystone—Keystone Driller Co., Beaver Falls, Pa.

DRILLS, ANGLE.

Dikeman Mfg. Co., Norwalk, Conn.
Morse Twist Drill & Machine Co., New Bedford, Mass.

DRILLS, AUTOMATIC PUSH.

Mr. Punch—Goodell-Pratt Co., Greenfield, Mass.
Yankee—North Bros. Mfg. Co., Philadelphia, Pa.

DRILLS, BELL HANGER & FEELER.

Cincinnati Tool Co., The, Cincinnati, O. "Hargrave."
Misener & Irving Mfg. Co., Inc., Syracuse, N. Y. "Syracuse."

DRILLS, BIT STOCK.

(See also "Bits, Auger.")

Etna Company, Taunton, Mass.
Forest City Bit & Tool Co., Rockford, Ill.
G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass. (For metal or wood.)
Hargrave—The Cincinnati Tool Co., Cincinnati, O.
Moore & Moore, Inc., Reading, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Rockford Twist Drill Co., Rockford, Ill.
Swan, James, Co., The, Seymour, Conn.
Whitman Barnes-Detroit Corp., Detroit, Mich.

DRILLS, BLACKSMITH.

American—American Scale Co., Kansas City, Mo.
Cleveland Twist Drill Co., Cleveland, O.
Moore & Moore, Inc., Reading, Pa. (Trade names—Coe's, Prentice, Silver & Deming.)
Rockford Twist Drill Co., Rockford, Ill.
Whitman Barnes-Detroit Corp., Detroit, Mich.

DRILLS, BREAST.

(For this and all other mechanical drills, see "Machines, Drilling.")

DRILLS, BRICK, STONE AND CONCRETE.

(See also "Hammers, Electric.")

B. M. Co.—Braunsdorf-Mueller Co., Elizabeth, N. J.
Chicago Expansion Bolt Co., Chicago, Ill.
Church, Isaac, Expansion Bolt Co., East Norwalk, Conn.
Cleveland—Cleveland Rock Drill Co., Cleveland, O.
Diamond "N"—Diamond Expansion Bolt Co., New York, N. Y.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Irvington Mfg. Co., Irvington, N. J.
Klein-Logan Co., The, Pittsburgh, Pa.
Leetonia Tool Co., The, Leetonia, Ohio.
Mueller Co., Decatur, Ill.
National Tool Co., New York, N. Y.
Osborne—Joseph G. Pollard Co., Inc., Brooklyn, N. Y.
Phillips Spring Hammer—Phillips Drill Co., Chicago, Ill.
R.-W.—Richards-Wilcox Mfg. Co., Aurora, Ill.
Silex—The Kilborn & Bishop Co., New Haven, Conn.
Star—Star Expansion Bolt Co., New York, N. Y.
Steward & Romaine Mfg. Co., Philadelphia, Pa.
U. S. E.—United States Expansion Bolt Co., New York, N. Y.
Warwood—Warwood Tool Co., Wheeling, W. Va.

DRILLS, CENTER.

Edward Mfg. Co., Brooklyn, N. Y. (plumbers').
Cogsdill Mfg. Co., The, Detroit, Mich.
Gledhill Mfg. Co., Providence, R. I.

Lincoln Twist Drill Co., Taunton, Mass.
Moore & Moore, Inc., Reading, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass
Rockford Twist Drill Co., Rockford, Ill.
Slocomb—J. T. Slocomb Co., Providence, R. I
Standard Tool Co., Cleveland, O.
Union Twist Drill Co., Athol, Mass.
Whitman Barnes-Detroit Corp., Detroit, Mich.

DRILLS, CORE.

Calyx—Ingersoll-Rand Co., New York.
Crafts, Arthur A., & Co., Boston, Mass.
Dobbins—Dobbins Core Drill Co., Inc., New York.
Gairing, The Tool Co., Inc., Detroit, Mich.
McKiernan-Terry Drill Co., New York, N. Y.
Stanworth Tool Mfg. Co., Inc., Indianapolis, Ind.

DRILL & COUNTERSINK COMBINED.

G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Syracuse Twist Drill Co., Syracuse, N. Y.
Whitman Barnes-Detroit Corp., Detroit, Mich.

DRILLS, ELECTRIC.

(See "Machines, Drilling, Electric.")

DRILLS, HAMMER.

Chicago Expansion Bolt Co., Chicago, Ill.

DRILLS, HEXAGON, FOR DRILLING ANGULAR HOLES.

Watts Bros. Tool Works, Wilmerding, Pa.

DRILLS, LEFT HAND.

Morse Twist Drill & Machine Co., New Bedford, Mass.
Rockford Twist Drill Co., Rockford, Ill.
Whitman Barnes-Detroit Corp., Detroit, Mich.

DRILLS, MINE, ROOF.

Imperial—Martin Hardsocg Co., Pittsburgh, Pa.
Leetonia Tool Co., The, Leetonia, Ohio.

DRILLS, OIL HOLE.

G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Shield Brand—The Standard Tool Co., Cleveland, O.
Union Twist Drill Co., Athol, Mass.
Whitman Barnes-Detroit Corp., Detroit, Mich.

DRILLS, PIPE TAPPING.

Billings & Spencer Co., The, Hartford, Conn.
Elterich, Chas., Co., New York, N. Y.
Little Giant—Greenfield Tap & Die Corp., Greenfield, Mass. (drill and tap combined).
Mueller Co., Decatur, Ill.
Sibley—Sibley Machine Co., South Bend, Ind.
Walworth Company, Boston, Mass.

DRILLS, PLUG.

Drew, C., & Co., Kingston, Mass.
Leetonia Tool Co., The, Leetonia, O.
Pollard, Joseph G., Co., Inc., Brooklyn, N. Y.
Schramm, Inc., West Chester, Pa.

DRILLS, PNEUMATIC.

(See "Machines, Drilling, Pneumatic")

DRILLS, PORTABLE, OIL WELL.

(See also "Machines, Well-Drilling.")

Armstrong Mfg. Co., Waterloo, Iowa.
Keystone—Keystone Driller Co., Beaver Falls, Pa.

DRILLS, RADIO, IN SETS.

Union Twist Drill Co., Athol, Mass.

DRILLS, RATCHET.

(See also "Ratchets and Ratchet Drills.")

Armstrong Brothers Tool Co., Chicago, Ill.
Beland—Aldon Company, The, Chicago, Ill.
Cleveland Twist Drill Co., Cleveland, O.
Goodell-Pratt Co., Greenfield, Mass.
Keystone, Monarch—Keystone Mfg. Co., Buffalo, N. Y.
Lovejoy Tool Works, Chicago, Ill.
Lutz—Lutz Company, Inc., Philadelphia, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Navy Standard—The Kilborn & Bishop Co., New Haven, Conn.
Peck, Stow & Wilcox Co., Southington, Conn.
Rockford Twist Drill Co., Rockford, Ill.
Toledo Pipe Threading Machine Co., Toledo, Ohio.
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Star, Improved—C. H. Yonts Co., Meadville, Pa.

DRILLS, SLIDING HEAD.

Dreses Machine Tool Co., Cincinnati, Ohio.
Harnischfeger Corp., The, Milwaukee, Wis.

DRILLS, SPRING HAMMER.

Phillips Drill Co., Chicago, Ill.
Star—Star Expansion Bolt Co., New York, N. Y.

DRILLS, STAR POINT AND DIAMOND POINT.

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Anderson, W. H., Tool & Supply Co., Detroit, Mich.
Arrow Tools, Inc., Chicago, Ill.
Biflex—The Barrett Sales Co., Chicago, Ill.
Braunsdorf-Mueller Co., Elizabeth, N. J.
Buffum Tool Co., Louisiana, Mo.
Church's—The Isaac Church Expansion Bolt Co., East Norwalk, Conn.
Cincinnati Tool Co., The, Cincinnati, O. "Hargrave."
Dasco—Damascus Steel Products Co., Rockford, Ill.
Delaware—Otto Bernz Co., Inc., Newark, N. J.
Diamond Expansion Bolt Co., New York, N. Y.
Duffy Manufacturing Co., Chicago, Ill.
Hood Bros., Philadelphia, Pa.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Irvington Mfg. Co., Irvington, N. J.
Mayhew Steel Products, Inc., New York, N. Y.
Mephisto—W. A. Ives Mfg. Co., Wallingford, Conn.
Milwaukee Tool & Forge Co., Milwaukee, Wis.
Misener & Irving Mfg. Co., Inc., Syracuse, N. Y. "Syracuse."
Mound—Mound Tool Co., St. Louis, Mo.
National Tool Co., New York, N. Y.
Philadelphia—Steward & Romaine Mfg. Co., Philadelphia, Pa.
Silex—The Kilborn & Bishop Co., New Haven, Conn.
Syracuse—Syracuse Twist Drill Co., Syracuse, N. Y.
U. S. Expansion Bolt Co., New York, N. Y.
V. & B.—Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Vulcan Tool Mfg. Co., The, Quincy, Mass.
W. C. Carver—Carver Tool Works, Spring Valley, N. Y.

DRILLS, STONE.

Cincinnati Tool Co., The, Cincinnati, O. "Hargrave."
Cleveland Rock Drill Co., The, Cleveland, Ohio.

DRILLS, STRAIGHT SHANK AND TAPER SHANK.

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G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Whitman Barnes-Detroit Corp., Detroit, Mich.

DRILLS, TAP.

Bay State Tap & Die Co., Mansfield, Mass.
G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.
Mueller Co., Decatur, Ill.
Standard Tool Co., Cleveland, O.
Walworth Company, Boston, Mass.
Whitman Barnes-Detroit Corp., Detroit, Mich.

DRILLS, TRACK.

Climax—National Standard Co., Niles, Mich.
Handlan-Buck Mfg. Co., St. Louis, Mo. "Beland," "Champion," "Handlan," "Noble," "Paulus," "Underwood."
Latrobe—Latrobe Tool Co., Latrobe, Pa.
Lovejoy Tool Works, Chicago, Ill.
Moore—Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Moore & Moore, Inc., Reading, Pa.
Richardson & Tallman, Shelbyville, Ill.
Rockford Twist Drill Co., Rockford, Ill.
Whitman Barnes-Detroit Corp., Detroit, Mich.

DRILLS, TWIST.

Alvo—Alvord Reamer & Tool Co., Millersburg, Pa.
Bellefleur, A. C., & Son Co., New London, Conn. (with reamer).
Buckeye Twist Drill Co., The, Alliance, O.
Celfor—Clark Equipment Co., Buchanan, Mich.
Cleveland—Cleveland Twist Drill Co., The, Cleveland, O.
Cogsdill Mfg. Co., The, Detroit, Mich.
Colton Detroit—Arthur Colton Co., Detroit, Mich.
Down Tool Works, Inc., Fleetwood, Pa. (Trade names—Down, Fleet.)
Etna Company, Taunton, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hargrave—The Cincinnati Tool Co., Cincinnati, O.
Latrobe—Latrobe Tool Co., Latrobe, Pa.
Mezzo—Cleveland Twist Drill Co., Cleveland, O.
Moore & Moore, Inc., Reading, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass
National, "7716"—National Twist Drill & Tool Co., Detroit, Mich.
Paragon—Cleveland Twist Drill Co., Cleveland, Ohio.
Polk, A. J., & Son Co., Millersburg, Pa.
Red Devil—Smith & Hemenway Co., Irvington, N. J.
Reliance—New Process Twist Drill Co., Taunton, Mass.
Rockford Twist Drill Co., Rockford, Ill.
Simplex High Speed—Simplex Tool & Supply Co., Boston, Mass.
Standard Tool Co., Cleveland, O.
Syracuse Twist Drill Co., Syracuse, N. Y.
Union Twist Drill Co., Athol, Mass.
Whitaker Mfg. Co., The, Chicago, Ill.
Whitman Barnes-Detroit Corp., Detroit, Mich.
Windau Iron Co., Cleveland, Ohio.
Wood—Morris Wood & Sons, Chicago, Ill.

DRILLS, TWIST, CAR, SHORT BODY.

Whitman Barnes-Detroit Corp., Detroit, Mich.

DRILLS, TWIST, FLAT.

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Reliance—New Process Twist Drill Co., Taunton, Mass.
Rockford Twist Drill Co., Rockford, Ill.

DRILLS, TWIST, WIRE GAGE.

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Cleveland Twist Drill Co., Cleveland, Ohio.
G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.
Hargrave—The Cincinnati Tool Co., Cincinnati, O.
Morse Twist Drill & Machine Co., New Bedford, Mass.
New Process Twist Drill Co., Taunton, Mass.
Rockford Twist Drill Co., Rockford, Ill.
Whitman Barnes-Detroit Corp., Detroit, Mich.

DRIVERS, DRIFT BOLT AND SPIKE.

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Chicago Pneumatic Tool Co., New York, N. Y. "Boyer."
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Thor—Independent Pneumatic Tool Co., Chicago, Ill.

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G. & A.—Snyder Mfg. Co., Detroit, Mich.
Keystone—The Keystone Mfg. Co., Buffalo, N. Y.

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(See "Chain, Transmission.")

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Oster Mfg. Co., The, Cleveland, O.
Toledo Pipe Threading Machine Co., Toledo, Ohio. (Trade names—Toledo, Toledo Junior.)

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Detroit Nut Co., Detroit, Mich.

DRIVES, ROPE.

(See also "Rope, Transmission.")

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Dodge Mfg. Corp., Mishawaka, Ind.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
J. & L.—Jones & Laughlin Steel Co., Pittsburg, Pa.
Link-Belt Company, Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
Mesta—Mesta Machine Co.,Pittsburgh, Pa.
Raniville, F., Co., Grand Rapids, Mich.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood's, T. B., Sons Co., Chambersburg, Pa.

DRIVES, SHORT BELT.

Smidth, F. L., & Co., Inc., New York, N. Y.

DRIVES, "V" BELT.

Allis-Chalmers Mfg. Co., Milwaukee, Wis. "Texrope."

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Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Medart Company, The, St. Louis, Mo.
Wood's, T. B., Sons Co., Chambersburg, Pa.

DRUMS, GRAVITY, INCLINE.

Carlin, John H., Machine Co., Pittsburgh, Pa.

DRUMS, HOISTING.

American Saw Mill Machinery Co., Hackettstown, N. J.
Brown Clutch Co., The, Sandusky, O. (Trade names—Brown, Junior No. 2, Little Giant, Morgan.)
Havana Mfg. Co., Havana, Ill.
Hayward—The Hayward Co., New York, N. Y.
Oliver, Wm. J., Mfg. Co., Knoxville, Tenn.
Weller Mfg. Co., Chicago, Ill.

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Medart Company, The, St. Louis, Mo

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Ruggles-Coles Engineering Co., New York, N. Y.

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Link-Belt Company, Chicago and Philadelphia.
Tolhurst Machine Works, Troy, N. Y.

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Sutton—Indiana Foundry Co., Indiana, Pa.
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Koven, L. O., & Bros., Jersey City, N. J.

DRYERS, VAT.

Improved Appliance Co., Brooklyn, N. Y. "Iaco."

DRYERS, WASTE HEAT.

Green—The Green Fuel Economizer Co., Beacon, N. Y.
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Sturtevant—B. F. Sturtevant Co., Hyde Park, Mass.

DUCK, WATERPROOF.

Hettrick Mfg. Co., Toledo, Ohio.

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Du Pont de Nemours, E. I., & Co., Wilmington, Del. (Trade names—Arctic, Forcite, Giant, Red Cross, Repauno.)
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Hercules, Xpdite Permissible Dynamite—Hercules Powder Co., The, Wilmington, Del.

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Diehl—Diehl Mfg. Co., Elizabeth, N. J.
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Electric Specialty Co., Stamford, Conn.
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Herschell-Spillman Motor Corp., North Tonawanda, N. Y.
Sprague Electric Works of General Electric Co., New York, N. Y.

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Coal-e-Con—Ansonia Corporation, New York, N. Y.
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Foster—Power Specialty Co., New York, N. Y.
Green—The Green Fuel Economizer Co., Beacon, N.Y.
King-Bate Co., The, Conshohocken, N. Y. "Coal Ga Smoke."
King Koal Karburetor—Frederick Sabin & Co., Inc., Philadelphia, Pa.
Sturtevant—B. F. Sturtevant Co., Hyde Park, Mass.
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Wolff Coal Saver Co., Chicago, Ill.
Z. T. Soot & Gas Consumer Co., Oshkosh, Wis.

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(See also "Mach'y, Sawmill," and "Mach'y, Woodworking.")

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American Saw Mill Machinery Co., Hackettstown, N. J.
Dixie, Hill—Hill-Curtis Co., Kalamazoo, Mich.
Frick Co., Waynesboro, Pa.
General Supply & Machine Co., Meridian, Miss.
Hoosier—The Sinker-Davis Co., Indianapolis, Ind.
Kline, Lewis T., Alpena, Mich.
Lane Mfg. Co., Montpelier, Vt. (gang).
Multnomah Iron Works, Portland, Ore.
Newman Machine Co., Greenboro, N. C.
Scarbrough Mfg. Co., Chattanooga, Tenn. (Trade names—Bronco, Pilgrim, Scarbrough.)
Standard Saw Mill Machinery Co., Erie, Pa.
Stearns—Mahoney Machinery Co., Erie, Pa.
Tower—The Gordon Hollow Blast Grate Co., Greenville, Mich.
Wheland—The Wheland Co., Chattanooga, Tenn. (Sawmill.)
Yates—American Machine Co., Rochester, N. Y.

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Brown & Sharpe Mfg. Co., Providence, R. I.
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Conveyors Corporation of America, Chicago, Ill.
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Lamy, A. & Son, Elizabeth, N. J.
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Blakeslee—Blakeslee Mfg. Co., DuQuoin, Ill.
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IXL—The IXL Pump & Mfg. Co., Philadelphia, Pa.
Jenkins—Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Latta-Martin Pump Co., Hickory, N. C.
P. F. T.—Pacific Flush Tank Co., Chicago, Ill.
Priestman—Priestman Ejector & Pump Co., Philadelphia, Pa.
Quimby, Wm. E., Inc., Newark, N. J.
S. M. S.—Sanitary Mechanical Specialty Co., New York, N. Y.
"Simplex" Pneumatic—Simplex Ejector Co., Chicago Ill.
Wise, J. B., Inc., Watertown, N. Y.
Yeomans Bros. Co., Chicago, Ill. "Yeomans," "Shone."

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Hajoca Corporation, Philadelphia, Pa.

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Exeter Brass Works, Exeter, N. H.
Frost Mfg. Co., Kenosha, Wis.
Richardson, Edro, Brass Co., Baltimore, Md.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Walworth Company, Boston, Mass.

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Bernz, Otto, Co., Newark, N. J.
Canfield, H. O., Co., Bridgeport, Conn.
Canfield Rubber Co., The, Bridgeport, Conn.
Diamond Rubber Co., The, Akron, O.
Empire Tire & Rubber Corp. of New Jersey, Trenton, N. J.
Federal Rubber Co. of Illinois, Cudahy, Wis.
Good Mfg. Co., Inc., New York, N. Y.
Goodrich, B. F., Co., The, Akron, O.
Garrison-Heiland Corp., New York, N. Y.
Lucky Strike—Lavelle Rubber Co., Chicago, Ill.
Quaker City Rubber Co., Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Sexauer, J. A., Mfg. Co., New York, N. Y.
Wilbow—Williams-Bowman Rubber Co., Cicero, Ill.
Woodward-Wanger Co., Philadelphia, Pa.

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Blake Specialty Co., Rock Island, Ill.
Clarksville Foundry & Machine Works, Clarksville, Tenn.
Cochrane, J. A., Brass Mfg. Co., Cleveland, O.
Columbus Brass Co., Columbus, O.
Dearborn Brass Co., Cedar Rapids, Ia.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Powell, Wm., Co., The, Cincinnati, O.
Powers, J. P., Mfg. Co., Ossining, N. Y.
Richardson, Edro, Brass Co., Baltimore, Md.
Standard Brass Mfg. Co., Utica, N. Y.
Street & Kent Mfg. Co., Chicago, Ill.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
Union Metal Works, Chelsea, Mass.
Ware Coupling & Nipple Co., Ware, Mass.
Wise, J. B., Inc., Watertown, N. Y.
Woodward-Wanger Co., Philadelphia, Pa.

ELBOWS, STREET.

Exeter Brass Works, Exeter, N. H.
Illinois Malleable Iron Co., Chicago, Ill.
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Richardson, Edro, Brass Co., Baltimore, Md.
Walworth Company, Boston, Mass.

ELBOWS, UNION.

Acheson Mfg. Co., Rankin, Braddock, P. O., Pa.
American—American Valve Co., Coxsackie, N. Y.
Auco—Angle Union Corp., New York, N. Y.
Beaton & Cadwell Mfg. Co., New Britain, Conn.
Capitol Brass Works, Detroit, Mich.
Dart Mfg. Co., E. M., Providence, R. I.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Eureka Brass Works Co., Inc., Cincinnati, O.
Exeter Brass Works, Exeter, N. H.
Flagg & Co., Stanley G., Philadelphia, Pa.
Fries & Co., Buffalo, N. Y.
Garratt & Co., W. T., San Francisco, Cal.
General Brass Co., Detroit, Mich.
Grip—Ware Coupling & Nipple Co., Ware, Mass.
Hammond—Hammond Brass Works, Hammond, Ind.
Haydenville Co., The, Haydenville, Mass.
Illinois Malleable Iron Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
K—Kuhns Bros., Dayton, O.
Lancaster Iron Works, Inc., Lancaster, Pa.
Lavigne—Commonwealth Brass Corp., Detroit, Mich.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Milwaukee Valve Co., Milwaukee, Wis.
N. T. C.—National Tube Co., Pittsburgh, Pa.
Ohio Brass Co., Mansfield, O. "O-B."
O. E.—O. E. Specialty Mfg. Co., Milwaukee, Wis.
Penn Engineering Co., The, Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, O.
Powell Co., The, Wm., Cincinnati, O.
Richardson, Edro, Brass Co., Baltimore, Md.
Rhode Island—Rhode Island Fittings Co., Hill Grove, R. I. (Bronze seat.)
Scott—Scott Valve & Mfg. Co., Detroit, Mich.
Walworth Company, Boston, Mass.

ELBOWS, UNION, RADIATOR.

American District Steam Co., North Tonawanda N. Y.
American Valve Co., Coxsackie, N. Y.
Capitol Brass Works, Detroit, Mich.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Lubricator Co., Detroit, Mich.
General Brass Co., Detroit, Mich.
Hammond Brass Works, Hammond, Ind.
Illinois Malleable Iron Co., Chicago, Ill. "Imico."
Lavigne—Commonwealth Brass Corp., Detroit, Mich.
Lunkenheimer Co., Cincinnati, O.
Milwaukee Valve Co., Milwaukee, Wis.
O. B.—Ohio Brass Co., Mansfield, O.
Penn Engineering Co., Philadelphia, Pa.
Pierce, Butler & Pierce Mfg. Corp., New York, N. Y.
Powell, Wm., Co., The, Cincinnati, O.
Roberts Brass Co., Milwaukee, Wis.
Scott Valve & Mfg. Co., Detroit, Mich.
Walworth Company, Boston, Mass.

ELECTRIC LIGHTING PLANTS, STEAM TURBO-GENERATOR.

Allis-Chalmers Mfg. Co., Milwaukee, Wis.
Buda Ross—Buda Co., The, Chicago, Ill.
Coppus—Coppus Engineering Corp., Worcester, Mass.
Terry Steam Turbine Co., The, Hartford, Conn.

ELECTRIC LIGHTING AND POWER PLANTS, GASOLINE ENGINE.

Cincinnati—E. I. Pearson Corp., Cincinnati, O.

ELECTRODES, WELDING.

General Electric Co., Merchandise Dept., Bridgeport, Conn.
McKinney-Harrington Co., North Chicago, Ill.
New-Arc—Electric Arc Cutting & Welding Co., Newark, N. J.
Page—Lincoln Steel Co., Chicago, Ill.
Wilson Welder & Metals Co., Hoboken, N. J.

ELEVATORS, BARREL.

Jeffrey Mfg. Co., Columbus, O.
Link-Belt Co., Chicago and Philadelphia.
Webster Mfg. Co., The, Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

ELEVATORS, BUCKET.

A. C. Co.—Lancaster Iron Works, Inc., Lancaster, Pa.
Amco—Alvey Mfg. Co., St. Louis, Mo.
American—American Hoist & Derrick Co., St. Paul, Minn.
Bartlett & Snow Co., C. O., Cleveland, Ohio.
Caldwell & Son Co., H. W., Chicago, Ill.
Chain Belt Co., Milwaukee, Wis.
Cross Engineering Co., Carbondale, Pa.
Freeman-Riff Co., Terre Haute, Ind.
Gifford-Wood Co., Hudson, N. Y.
Goodyear Tire & Rubber Co., The, Akron, O. (Trade names—Goodyear, Klingtite.)
Gutta Percha & Rubber Mfg. Co., New York.
Howe Chain Co., Muskegon, Mich.
Insley Mfg. Co., Indianapolis, Ind.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Link-Belt Company, Chicago and Philadelphia.
McKinney-Harrington Co., North Chicago, Ill.
McLanahan Stone Machine Co., Hollidaysburg, Pa.
Robins Conveying Belt Co., New York, N. Y.
Sackett Screen & Chute Co., Chicago, Ill.
Specialty Engineering Co., Philadelphia, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Reliance—Universal Road Machinery Co., Kingston, N. Y.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wolf Co., The, Chambersburg, Pa.

ELEVATORS, BUILDING MATERIAL.

Boss—American Cement Machine Co., Inc., Keokuk, Ia.
Byers, John F., Machine Co., Ravenna, O.
C. H. & E. Mfg. Co., Inc., Milwaukee, Wis.
Grand Rapids Vapor Kiln Co., Grand Rapids, Mich.
Moloch Company, Kaukauna, Wis.
Leach Company, The, Oshkosh, Wis.
Root, B. M. Co., York, Pa.
Standard Conveyor Co., North St. Paul, Minn.

ELEVATORS, EMPLOYES.

Humphrey—Nutting Truck Co., Faribault, Minn.
Wolf Company, The, Chambersburg, Pa.

ELEVATORS, HAND POWER.

Decatur Foundry, Furnace & Machine Co., Decatur, Ind.
Energy Elevator Co., Philadelphia, Pa.
Grote—F. Grote Mfg. Co., Evansville, Ind.
Jordan—Jordan Bros., Inc., New York.

Kimball Bros., Council Bluffs, Iowa.
Lamson Co., Syracuse, N. Y.
Moffatt Machinery Mfg. Co., Charlotte, N. C.
Otis Elevator Co., New York, N. Y.
Philadelphia Elevator Co., Philadelphia.
Revolvator—Revolvator Co., Jersey City, N. J.
Speidel Elevator Corp., Reading, Pa.
Storm Mfg. Co., The, Newark, N. J.
Warsaw Elevator Co., Warsaw, N. Y.

ELEVATORS, HYDRAULIC.

Abendroth & Root Mfg. Co., Newburgh, N. Y. (gravel).
Kerrihard Co., Red Oak, Ia. (freight).
Otis Elevator Co., New York, N. Y.
Ridgway, C., & Son Co., Coatesville, Pa.

ELEVATORS, ICE.

Curtis & Co. Mfg. Co., St. Louis, Mo.
Gifford-Wood Co., Hudson, N. Y.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Link-Belt Company, Chicago and Philadelphia.
Weller Mfg. Co., Chicago, Ill.

ELEVATORS, LUMBER.

Grand Rapids Vapor Kiln Co., Grand Rapids, Mich.
Hill-Curtis Co., Kalamazoo, Mich.
Root Co., B. M., York, Pa.

ELEVATORS, PILERS OR STACKERS, PORTABLE.
(See also "Machines, Tiering.")

Alvey Mfg. Co., St. Louis, Mo.
Barber-Greene Co., Aurora, Ill.
Barrett-Cravens Co., Chicago, Ill.
Brown—Standard Conveyor Co., North St. Paul, Minn.
Caldwell, H. W., & Son Co., Chicago, Ill.
Economy Engineering Co., Chicago, Ill.
Gifford-Wood Co., Hudson, N. Y.
Haslett Chute & Conveyor Co., The, Philadelphia, Pa.
Jeffrey Mfg. Co., Columbus, O.
L-S Stacker—Lewis-Shepard Co., Boston, Mass.
Lakewood Tier Lift Truck—Lakewood Engineering Co., Cleveland, O.
Latimer, Robert L., & Co., Philadelphia, Pa.
Link Belt Company, Chicago and Philadelphia.
Morris, Herbert, Inc., Buffalo, N. Y.
New Jersey Foundry & Machine Co., New York, N. Y.
Revolvator—Revolvator Co., Jersey City, N. J.
Tier-Lift—Lakewood Engineering Co., Cleveland, O.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

ELEVATORS, SIDEWALK.

Barrett-Cravens Co., Chicago, Ill.
Energy Elevator Co., Philadelphia, Pa.
Ernst, Charles K., Buffalo, N. Y.
Grote Mfg. Co., Evansville, Ind.
Jordan Bros., Inc., New York, N. Y.
Kimball Bros., Council Bluffs, Iowa.
Philadelphia Elevator Co., Philadelphia, Pa.
Speidel Elevator Corp., Reading, Pa.
Storm Mfg. Co., The, Newark, N. J.
Warsaw Elevator Co., Warsaw, N. Y.

ELEVATORS, TRAY.

Haslett Chute & Conveyor Co., The, Philadelphia, Pa.
Jeffrey Mfg. Co., Columbus, Ohio.
Link-Belt Company, Chicago and Philadelphia.
Weller Mfg. Co., Chicago, Ill.

ELIMINATORS, OIL.

Hoppes—The Hoppes Mfg. Co., Springfield, O.
Williams, D. T., Valve Co., The, Cincinnati, O.

EMERY AND OTHER ABRASIVES (CAKE & POWDER, FLOUR & GRAIN.)

Abrasive Company, Philadelphia, Pa. "Borolon," "Electrolon."
Abrasive Mining & Mfg. Co., Plymouth, Ind. "Scimitar," "Sultan."
American Tripoli Co., Seneca, Mo.
Behr, Herman, & Co., Inc., Brooklyn, N. Y. "Adamite," "Amalgite."
Exolon Company, The, Blasdell, N. Y. "Carbolon."
General Abrasive Co., Inc., Niagara Falls, N. Y.
Hamilton Mills—Hamilton Emery & Corundum Co., Chester, Mass.
Hoppen, J. E., & Sons, Belleville, N. J.
Keystone Emery Mills, Philadelphia, Pa. (Trade names—American, Keystone, Khasia, Turkish.)
Manning—Manning Abrasive Co., Inc., Troy, N. Y.
Munning, A. P., & Co., Matawan, N. J.
Niagara Emery Mills, Inc., New York, N. Y.
Oriental Emery Co., New Haven, Conn. (Trade names—Naxos, Turkish.)
Pittsburgh Crushed Steel Co., Pittsburgh, Pa. "Angular Grit" (metallic).
Speare's, Alden, Sons Co., The, Cambridge, Mass.
Stiles, H. A., & Co., Boston, Mass. "Ottoman."
Tanite Co., The, Stroudsburg, Pa.

ENDS, HOSE.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Burlington Brass Works, Burlington, Wis.
Fries & Co., Buffalo, N. Y.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Powhatan Brass & Iron Works, Ranson, W. Va.
Street & Kent Mfg. Co., Chicago, Ill.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
Walworth Company, Boston, Mass.
Wise, J. B., Inc., Watertown, N. Y.

ENDS, ROD, FOR MACHINERY.

B. & S.—The Billings & Spencer Co., Hartford, Conn
Williams, J. H., & Co., Buffalo, N. Y.

ENDS, SAFE, FOR BOILER TUBES.

Detroit Seamless Steel Tubes Co., Detroit, Mich.
National & Shelby—National Tube Co., Pittsburgh, Pa.
Pittsburgh Steel Products Co., Pittsburg, Pa.

ENDS, YOKE.

Williams, J. H., & Co., Buffalo, N. Y.
B. & S.—The Billings & Spencer Co., Hartford, Conn.

ENGINES, DIESEL, CRUDE OIL.

DeLaVergne—DeLaVergne Machine Co., New York, N. Y.
Diesel—Busch-Sulzer Bros.-Diesel Engine Co., St. Louis, Mo.
Dow Pump & Diesel Engine Co., San Francisco, Cal.
Falk Corporation, The, Milwaukee, Wis.
McIntosh & Seymour—McIntosh & Seymour Corp., Auburn, N. Y.
Nordberg Mfg. Co., Milwaukee, Wis.
Transit—National Transit Pump & Machine Co., Oil City, Pa.
Union Gas Engine Co., Oakland, Cal.
Venn-Severin—Venn Severin Machine Co., Chicago, Ill.
Western Machinery Co., Los Angeles, Cal.

ENGINES, DISTILLATE.
(See "Engines, Gas, Gasoline and Oil.")

ENGINES, FIRE, CHEMICAL.

Ajax—Ajax Fire Engine Works, Brooklyn, N. Y.
Badger's—Badger Fire Extinguisher Co., Boston, Mass.
Childs—Foamite-Childs Corp., Utica, N. Y. (portable).
Home—Home Chemical Co., The, Rochester, N. Y.
Larkin—Larkin Mfg. Co., Dayton, O. (hand).
Miller—Miller-Peerless Mfg. Co., Chicago, Ill.
National—Geo. W. Diener Mfg. Co., Chicago, Ill.
Northern—Northern Fire Apparatus Co., Minneapolis, Minn.
Pirsch, Peter, & Sons Co., Kenosha, Wis.
Protector—Knight & Thomas, Inc., Boston, Mass.
Pyrene Mfg. Co., New York, N. Y. (Trade names—Guardene, Phomene.)
Queen—Harker Mfg. Co., Cincinnati, Ohio.
Rex—Rex Fire Equipment Corp., New York, N. Y.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Rowe, A. C., & Son, Inc., New York.
Safety—The Safety Fire Extinguisher Co., New York, N. Y.
Stempel Fire Extinguisher Co., St. Louis, Mo.
Stewart, A. F., Rochester, N. Y.
Success—H. W. Johns-Manville Co., New York, N. Y.
Woodhouse—Woodhouse Mfg. Co., New York, N. Y.

ENGINES, FIRE, HAND.

Goulds Pumps, Inc., Seneca Falls, N. Y. (Trade names—Baltic, Challenge, Swan-neck.)
Queen—Harker Mfg. Co., Cincinnati, Ohio.

ENGINES, FIRE, MOTOR PROPELLED.

Foamite-Childs Corp., Utica, N. Y. (Trade names—Childs, Foamite.)
Northern, Atlas—Northern Fire Apparatus Co., Minneapolis, Minn.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Waterous Engine Works Co., St. Paul, Minn.

ENGINES, FIRE, STEAM.

Ahrens-Fox—Ahrens-Fox Fire Engine Co., Cincinnati, O.
American La France Fire Engine Works, Elmira, N. Y.
American Well Works, Aurora, Ill.
International Motor Co., New York, N. Y.

ENGINES, OR MOTORS, GAS, GASOLINE, KEROSENE AND OIL, STATIONARY.

Allis-Chalmers Co., Milwaukee, Wis.
American—American Engine Co., Detroit, Mich.
Appleton Mfg. Co., Batavia, Ill.
Arnold—G. W. Arnold's Son, Ionia, Mich.

Associated Manufacturers' Co., Waterloo, Iowa.
Atlas—San Antonio Machine & Supply Co., San Antonio, Tex.
Automatic Machine Co., The, Bridgeport, Conn.
Backus—Backus Water Motor Co., Newark, N. J.
Badger—Badger Gas & Gasoline Engine Co., Kansas City, Kan.
Baines Engineering Co., The, Canal Dover, O.
Baker—The Heller-Aller Co., Napoleon, O.
Baker Mfg. Co., Evansville, Wis.
Barker Factory, The, Norwalk, Conn.
Bates & Edmonds Motor Co., Lansing, Mich.
Bauroth Bros., Springfield, O.
Bay City Iron Co., Bay City, Mich.
Bessemer—The Bessemer Gas Engine Co., Grove City, Pa.
Bethlehem Steel Co., Bethlehem, Pa.
Blakeslee—American-Blakeslee Mfg. Co., Birmingham, Ala.
Bridgeport Motor Co., Bridgeport, Conn.
Brownwall, Holland—Holland Engine Co., Inc., Holland, Mich.
Bruce-Macbeth—The Bruce-Macbeth Engine Co., Cleveland, O.
Buffalo Gasolene Motor Co., Buffalo, N. Y.
Burlingame, S. F., Worcester, Mass.
Callahan—W. P. Callahan Co., The, Dayton, O.
Castle—A. M. Castle Engineering Co., La Crosse, Wis.
C. H. & E. Manufacturing Co., Inc., Milwaukee, Wis.
Challenge—Challenge Co., Batavia, Ill.
Chapman, H. L., Marcellus, Mich.
Charter, Mietz—Charter Gas Engine Co., Sterling, Ill.
Chuse—Chuse Engine & Mfg. Co., Mattoon, Ill.
Clark Engine & Boiler Co., Kalamazoo, Mich.
Cook Motor Co., The, Delaware, O. (Trade names—Cook, Denison Powermaker.)
Cooper—The C. & G. Cooper Co., Mount Vernon, O.
Cushman—Cushman Motor Co., Lincoln, Neb.
Davenport (Hold Type), Davenport Mfg. Co., Inc., Davenport, Iowa.
Dempster—Dempster Mill Mfg. Co., Beatrice, Neb.
Diamond—Diamond Iron Works, Minneapolis, Minn.
Dodge (Burnoil)—Dodge Mfg. Corp., Mishawaka, Ind.
Domestic—Domestic Engine & Pump Co., Shippensburg, Pa.
Double Efficiency—Fuller & Johnson, Madison, Wis.
Dow Pump & Diesel Engine Co., San Francisco, Cal.
DuBois—DuBois Iron Works, DuBois, Pa.
Economy—The Pattin Bros. Co., Marietta, O.
Enterprise Machine Co., Minneapolis, Minn. "Westman."
Fairbanks-Morse—Fairbanks, Morse & Co., Chicago, Ill.
Farquhar, A. B., Co., Ltd., York, Pa.
Fisherman—Loane Engineering Co., Baltimore, Md.
Foos—The Foos Gas Engine Co., Springfield, O.
"Franklin Valveless"—Franklin Valveless Engine Co., Franklin, Pa.
Frisbie Motor—Frisbie Motor Co., Middletown, Conn.
Frisco Standard—Standard Gas Engine Co., Oakland, Calif.
Gade—Gade Bros. Mfg. Co., Iowa Falls, Ia.
Galloway Co., The Wm., Waterloo, Ia.
Godfrey-Keeler Co., New York, N. Y.
Goes Like Sixty—Gilson Mfg. Co., Port Washington, Wis.
Grand Rapids—Perkins & Co., Grand Rapids, Mich.
Gray Motor Co., Detroit, Mich. "Gray."
Gray & Prior Machine Co., The, Hartford, Conn.
Hagan Gas Engine & Mfg. Co., Winchester, Ky.
Hamilton—Advance Mfg. Co., Hamilton, O.
Harriman Power Co., Torrington, Conn.
Hartig Standard Gas Engine Co., Newark, N. J.
Hatch, American, International—Hatch Oil Engine Co., New London, Conn. (oil).
Havana Mfg. Co., Havana, Ill.
Hercules Motor Mfg. Co., Canton, O.
Hercules—The Hercules Corp., Evansville, Ind.
Herschell-Spillman Motor Co., North Tonawando, N. Y.
Hicks Iron Works, San Francisco, Calif.
Holland Engine Co., Holland, Mich.
Honest Clay—Clay Engine Mfg. Co., Cleveland, O.
Hope Engineering & Supply Co., Pittsburg, Pa.
Hope Forge & Machine Co., The, Mt. Vernon, O.
Hoosier—Flint & Walling Mfg. Co., Kendallville, Ind.
Huber Mfg. Co., The, Marion, O.
Hubbard Motor Co., The, Middletown, Conn.
Ingeco—Worthington Pump & Machinery Corp., New York, N. Y.
Ingersoll-Rand Co., New York, N. Y.
J. C.—The Titusville Iron Works, Titusville, Pa.
Jack-of-all-Trades—Fairbanks, Morse & Co., Chicago.
Johnston & Jennings Co., Cleveland, O.
Jones—Huntsville Foundry & Machine Works, Huntsville, Ala.
Jumbo—Nelson Bros. Co., Saginaw, Mich.
Kahlenberg—Kahlenberg Bros. Co., Two Rivers, Wis.
Krueger, Krueger-Atlas—San Antonio Machine & Supply Co., San Antonio, Tex.
Lansing Motor & Pump Co., Lansing, Mich.
Lauson, John, Mfg. Co., New Holstein, Wis.
Leader Iron Works, Decatur, Ill.
Leader-Ospraymo—Field Force Pump Co., Elmira, N. Y.
Loane—Loane Engineering Co., Baltimore, Md.
Longlife—Plymouth Metal Products Co., Plymouth, Wis.
Machine Shop Equipment Co., Grove City, Pa.
McEwen Mfg. Company, Tulsa, Okla.
McLaughlin Mfg. Co., Geo. G., Boston, Mass.
Mesta—Mesta Machine Co., The, Pittsburg, Pa.
Miller—The Miller Improved Gas Engine Co., Springfield, O.
Missouri—Missouri Engine Co., St. Louis, Mo.
Monarch—American Scale Co., Kansas City, Mo.
Monarch—Grand Rapids Gasoline Engine Co., Grand Rapids, Mich.
Monarch—H. N. Strait Mfg. Co., Kansas City, Mo.
Monitor—Baker Mfg. Co., Evansville, Wis.
Muktunotor—Fuller & Johnson, Madison, Wis. (small)
Murray Iron Works, Burlington, Iowa.
National Transit—National Transit Pump & Machine Co., Oil City, Pa.
Niesco Diesel—New London Ship & Engine Co., Groton, Conn.
New Holland—New Holland Machine Co., New Holland, Pa.
New Model — National Engineering Co., Saginaw, Mich.
New Way—The New Way Motor Co., Lansing, Mich.
New York Blower Co., Chicago, Ill.
Nichols Power Co., Inc., Stamford, Conn.
Nordberg Mfg. Co., Milwaukee, Wis.
Northwestern Steel & Iron Works, Eau Claire, Wis.
Ohio Valley Supply Co., The, Lima, O.
Oil City Boiler Works, Oil City, Pa.
Oil Well Supply Co., Pittsburg, Pa.
Okey Mfg. Co., Columbus, O.
Olds—Reliance Engineering Co., Lansing, Mich.
Olin—Olin Gas Engine Co., Inc., Buffalo, N. Y.
Olin—The Titusville Iron Works Co., Titusville, Pa.
Orr & Sembower, Inc., Reading, Pa.
Otto—Otto Engine Works, Philadelphia, Pa.
Palmer—Palmer Bros. Engines, Inc., Coscob, Conn.
Parker, S. E., Chicago, Ill.
Pittsburgh Filter & Eng. Co., Pittsburgh, Pa.
Pittsburgh Pump and Supply Co., Pittsburgh, Pa.
Powell, Wm., The, Co., Cincinnati, O.
Price Pump & Engine Co., G. W., San Francisco, Cal.
Primm—The Power Mfg. Co., Marion, O.
Quayle—Commonwealth Motors Co., Chicago, Ill.
Rathbun—The Rathbun-Jones Engineering Co., Toledo, O.
Reeco—Rider-Ericsson Engine Co., New York, N. Y.
Remington—The Remington Oil Engine Co., Stamford, Conn.
Ritchie—Advance Mfg. Co., Hamilton, O.
Rochester Gas Engine Co., Rochester, N. Y.
Schenck Mfg. & Supply Co., Parkers Landing, Pa.
Schramm, Inc., West Chester, Pa.
Scripps—The Scripps Motor Car Co., Detroit, Mich.
Sieverkropp Engine Co., The, Racine, Wis.
Sinker-Davis Co., The, Indianapolis, Ind.
Smith—T. L. Smith Co., Milwaukee, Wis.
Southern—Southern Engine & Boiler Works, Jackson, Tenn.
Spang & Company, Butler, Pa.
Standard Gas Engine Co., Oakland, Cal.
S S S—The Standard Scale & Supply Corp., Pittsburgh, Pa.
Standard Gas Engine Works, Erie, Pa.
Standard Pump & Engine Co., Akron, O.
Star—Star Mfg. Co., New Lexington, O.
Sterling Engine Co., Buffalo, N. Y.
Stewart—Chicago Flexible Shaft Co., Chicago, Ill.
Superior Gas Engine Co., Springfield, O.
Taylor—The Taylor Machine Co., Chicago, Ill.
Transit—National Transit Pump & Machine Co., Oil City, Pa.
Tri-State—Tri-State Engineering Co., Zanesville, O.
Turner-Fricke—Turner-Fricke Mfg. Co., Pittsburg, Pa.
Twin City—Twin City Co., Minneapolis, Minn.
Union—Union Gas Engine Co., Oakland, Cal.
United—United Engine Co., Lansing, Mich.
Van Duzen-Roys Co., Columbus, O.
Venn-Severin—Venn-Severin Machine Co., Chicago, Ill.
Victory—Victory Manufacturing Co., Niles, Cal.
Vim—Vim Motor Co., Sandusky, O.
Warren—Struthers-Wells Co., Warren, Pa.
Waterloo Boy—Waterloo Gas Engine Co., Waterloo, Ia.
Western Machinery Co., Los Angeles, Cal.
Westinghouse—Westinghouse Electric & Mfg. Co., Philadelphia, Pa.
Winton—The Winton Co., Cleveland, Ohio.
Wisconsin—Wisconsin Machinery & Mfg. Co., Milwaukee, Wis.
Witte Engine Works, Kansas City, Mo.
Worthington Pump & Machinery Corp., New York.
Wright, Reliable—The Wright Machine Co., Owensboro, Ky.
Wyandott Chief—Badger Gas & Gasoline Engine Co., Kansas City, Kan.
Young & Sons, E. R., Titusville, Pa.

ENGINES OR MOTORS, GASOLINE, MARINE, AUTOMOBILE AND TRUCK.

(See also "Engines, Diesel")

Alamo—The Alamo Engine Co., Hillsdale, Mich.
American Engine Co., Detroit, Mich.
Automatic—Automatic Machine Co., Bridgeport, Conn
Auto Engine Works, St. Paul, Minn.
Barber—King Brothers, Syracuse, N. Y.
Barker, C. L., Norwalk, Conn.
Bay City Iron Co., Bay City, Mich.
Buda—The Buda Company, Harvey, Ill.
Cady, C. N., Co., Inc., The, Canastota, N. Y.
Capitol—Auto Engine Works, St. Paul, Minn.
Clark Engine & Boiler Co., Kalamazoo, Mich.
Castle—A. M. Castle Engineering Co., La Crosse, Wis
Commonwealth Motors Co., Chicago, Ill.
Continental Motors Co., Detroit, Mich.
Doak—Doak Gas Engine Co., Oakland, Cal.
Dow Pump & Diesel Engine Co., San Francisco, Calif.
Evansville—Evansville Gas Engine Works, Evansville, Ind.
Evinrude Motor Co., Milwaukee, Wis.
Frisble Motor—Frisble Motor Co., Middletown, Conn
Frisco Standard—Standard Gas Engine Co., Oakland, Cal.
Fuller & Johnson Mfg. Co., Madison, Wis.
Grand Rapids—Perkins & Co., Grand Rapids, Mich.
Gray Motor Co., Detroit, Mich.
Harrisburg Foundry & Machine Wks., Harrisburg, Pa.
Hercules Motor Mfg. Co., Canton, Ohio.
Hicks Iron Works, San Francisco, Calif.
Hooven, Owens, Rentschler Co., Hamilton, O.
Ingersoll Rand Co., New York.
Loane Engineering Co., Baltimore, Md.
Marion Machine Foundry & Supply Co., Marion, Ind.
Mietz—Charter Gas Engine Co., Sterling, Ill.
Missouri—Missouri Engine Co., St. Louis, Mo.
Monarch—Grand Rapids Gasoline Engine Co., Grand Rapids, Mich.
New Way Motor Co., The, Lansing, Mich.
Niagara—Niagara Motors Corp., Dunkirk, N. J.
Nichols Power Co., Inc., Stamford, Conn.
Niseco Diesel—New London Ship & Engine Co., Groton, Conn.
Ontario—A. E. Olmstead, & Sons, Pulaski, N. Y.
Palmer Bros. Engines, Inc., Coscob, Conn.
Paul—Ft. Wayne Engineering & Mfg. Co., Ft. Wayne, Ind.
P. R.—Rathbun Jones Engineering Co., Toledo, O.
Price Pump & Engine Co., G. W., San Francisco, Cal.
Quayle—Commonwealth Motors Co., Chicago, Ill.
Regal Gasoline Engine Co., Coldwater, Mich.
Remington Oil Engine Co., The, Stamford, Conn.
Schramm, Inc., West Chester, Pa.
Speedway—Consolidated Shipbuilding Corp., New York, N. Y.
Standard Gas Engine Co., Oakland, Cal.
Stearns Motor Mfg. Co., Ludington, Mich.
Sterling—Sterling Engine Co., Buffalo, N. Y.
Superior—Superior Motor Works, Jackson, Mich.
Taylor—The Taylor Machine Co., Chicago, Ill.
Taylor Oil Engines, Inc., Ludington, Mich.
Union—Union Gas Engine Co., Oakland, Cal.
Venn-Severin—Venn-Severin Machine Co., Chicago, Ill
Vim Motor Co., Sandusky, Ohio.
Western Machinery Co., Los Angeles, Cal.
Worthington Pump & Machinery Corp., New York.
Wright—Wright Machine Co., Owensboro, Ky.

ENGINES, HOISTING, GASOLINE.

(See also Hoists, Gas Engine.)

Backus Water Motor Co., Newark, N. J.
Blakeslee—American-Blakeslee Mfg. Co., Birmingham, Ala.
Charter Gas Engine Co., Sterling, Ill.
Clyde Grade—Clyde Iron Works, Duluth, Minn.
Domestic—Domestic Engine & Pump Co., Shippensburg, Pa.
Fairbanks, Morse & Co., Chicago, Ill.
Foos—The Foos Gas Engine Co., Springfield, O.
Novo Engine Co., Lansing, Mich.
Union—Union Gas Engine Co., Oakland, Cal.

ENGINES, HOISTING, STEAM.

Allen Engineering Co., Philadelphia, Pa.
American—American Engineering Co., Philadelphia, Pa.
American—American Hoist & Derrick Co., St. Paul, Minn.
Blakeslee-White—American Blakeslee Mfg. Co., Birmingham, Ala.
Buffalo Hoist & Derrick Co., Buffalo, N. Y.
Byers Machine Co., The John F., Ravenna, O.
Carlin, John H., Machine Co., Pittsburgh, Pa.
Chase Machine Co., The, Cleveland, O.
Clyde—Clyde Iron Works, Duluth, Minn.
Connellsville Machine & Car Co., Connellsville, Pa.
Connellsville Mfg. & Mine Supply Co., Connellsville, Pa.
Cramp, Wm., & Sons, Ship & Engine Building Co., The, Philadelphia, Pa.
Crawford & McCrimmon Co., Brazil, Ind.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Dake Engine Co., Grand Haven, Mich.
Fair Haven Foundry & Machine Co., Fair Haven, Vt.
Filer & Stowell Co., Milwaukee, Wis.
Flory—S. Flory Mfg. Co., Bangor, Pa.
Guenther—J. Jacob Shannon Co., Philadelphia, Pa.
Hardie-Tynes Mfg. Co., Birmingham, Ala.
Lake Shore Engine Works, Marquette, Mich.
Lambert—Lambert Hoisting Engine Co., Newark, N. J
Lansing Motor & Pump Co., Lansing, Mich.
Lidgerwood Mfg. Co., New York, N. Y.
Litchfield Foundry & Machine Co., Litchfield, Ill
McKeown—Portsmouth Engine Co., Portsmouth, O
Mead-Morrison—Mead-Morrison Mfg. Co., Boston, Mass.
Mesta Machine Co., Pittsburgh, Pa.
Mundy—J. S. Mundy, Hoisting Engine Co., Newark, N. J.
National—National Hoisting Engine Co., Harrison, N. J.
Nordberg—Nordberg Mfg. Co., Milwaukee, Wis.
Orr & Sembower, Inc., Reading, Pa.
Ottumwa Iron Works, Ottumwa, Ia.
Patch Mfg. Co., F. R., Rutland, Vt.
Price Pump & Engine Co., G. W., San Francisco.
Southern—Southern Engine & Boiler Works, Jackson, Tenn.
Standard Gas Engine Co., Oakland, Cal.
Star Machinery Co., Seattle, Wash.
Stine, S. B., Osceola Mill, Pa.
Street Brothers Machine Works, Chattanooga, Tenn.
Stroudsburg Engine Works, The, Stroudsburg, Pa.
Superior Iron Works Co., Superior, Wis.
Thomas Elevator Co., Chicago, Ill.
Union—Union Gas Engine Co., Oakland, Cal.
United Iron Works, Kansas City, Mo.
Weimer—Weimer Machine Works Co., Lebanon, Pa.
Weintz Bros., Evansville, Ind.
W. B.—San Francisco Engineering Co., San Francisco Cal.

ENGINES, HOT AIR PUMPING.

Buffalo Engine Co., Buffalo, N. Y.
Reeco—Rider-Ericsson Engine Co., New York.
Wilmington—F. F. Slocomb & Co., Inc., Wilmington Del.

ENGINES, HYDRAULIC.

(See "Rams, Hydraulic.")

ENGINES, OIL WELL DRILLING.

Ajax Iron Works, Corry, Pa.
Brownell Co., The, Dayton, Ohio.
Clark Bros. Company, Olean, N. Y.
Oil City Boiler Works, Oil City, Pa.
Warren—Struthers-Wells Co., Warren, Pa.

ENGINES, POPPET VALVE.

Erie City Iron Works, Erie, Pa.
Filer & Stowell Co., Milwaukee, Wis.
Hooven, Owens, Rentschler Co., The, Hamilton, O.
Nordberg Mfg. Co., Milwaukee, Wis.
Universal Unaflow—Skinner Engine Co., Erie, Pa.
Vilter Mfg. Co., Milwaukee, Wis.

ENGINES, PUMPING.

(See "Pumps, Power.")

ENGINES, STEAM, AUTOMATIC.

Automatic Furnace Co., Dayton, O.
Buffalo Forge Co., Buffalo, N. Y.
Chandler & Taylor Co., Indianapolis, Ind.
Clark Engine & Boiler Co., Kalamazoo, Mich.
Erie Engine Works, Erie, Pa.
Frost Mfg. Co., Galesburg, Ill.
Fritz Foundry & Machine Co., Geo. J., St. Louis, Mo.
Nagle Engine & Boiler Works, Erie, Pa.
Skinner Engine Co., Erie, Pa.
Sturtevant—B. F. Sturtevant Co., Hyde Park, Mass.
Troy—Troy Engine & Machine Co., Troy, Pa.

ENGINES, STEAM, CORLISS.

(See also Engines, Steam.)

Allis-Chalmers Co., Milwaukee, Wis.
Chuse—Chuse Engine & Mfg. Co., Mattoon, Ill.
Cooper—The C. & G. Cooper Co., Mt. Vernon, O.
Erie Pump & Engine Co., Medina, N. Y.
Filer & Stowell Co., The, Milwaukee, Wis. (Corliss rocking valve, unaflow.)
Fleming—Harrisburg Foundry & Machine Works, Harrisburg, Pa.
Frost Mfg. Co., Galesburg, Ill.
Hardie-Tynes Mfg. Co., Birmingham, Ala.
Harris—Franklin Machine Co., Providence, R. I.
Hooven, Owens, Rentschler Co., The, Hamilton, O.
Ideal—A. L. Ide & Sons, Springfield, Ill.
Mesta—Mesta Machine Co., Pittsburgh, Pa.

Murray—Murray Iron Works, Burlington, Ia.
Nordberg Corliss—Nordberg Mfg. Co., Milwaukee, Wis.
Rice Sargent—Providence Engineering Corp., Providence, R. I.
Southwark—Southwark Foundry & Machine Co., Philadelphia, Pa.
Sun Shipbuilding Co., Wetherill Plant, Chester, Pa.
Vilter Mfg. Co., The, Milwaukee, Wis.
Watts-Campbell Co., The, Newark, N. J.
Weimer—Weimer Machine Works Co., Lebanon, Pa.
Weintz Bros., Evansville, Ind.
Worthington Pump & Machinery Corp., New York.

ENGINES, STEAM, MARINE.

Badenhausen Corp., Cornwell Heights, Pa.
Clark Engine & Boiler Co., Kalamazoo, Mich.
Codd Co., E. J., Baltimore, Md.
Consolidated Shipbuilding Corp., New York, N. Y.
Cruickshank Engine Co., Providence, R. I.
Erie Pump & Engine Co., Erie, Pa.
Evansville Gas Engine Works, Evansville, Ind. "Evansville."
Filer & Stowell Co., Milwaukee, Wis.
Hardie-Tynes Mfg. Co., Birmingham, Ala.
Honest Clay—Clay Engine Mfg. Co., Cleveland, O.
International Clay Machinery Co., Dayton, O.
Monarch—Perkins & Co., Grand Rapids, Mich.
Morris Machine Works, Baldwinsville, N. Y.
Oriole—Page Engineering Co., Baltimore, Md.
O. & S.—Orr & Sembower, Inc., Reading, Pa.
Portland Co., The, Portland, Me.
Puget Sound Machinery Depot, Seattle, Wash.
Sun Shipbuilding Co., Wetherill Plant, Chester, Pa.
Superior Iron Works, Superior, Wis.
Ward, Chas., Engineering Works, Charleston, W. Va.

ENGINES, STEAM, PORTABLE.

Eclipse—Frick Co., Waynesboro, Pa.
Enterprise Co., The, Columbiana, O.
Farquhar Ajax—A. B. Farquhar Co., Ltd., York, Pa.
Leffel—The James Leffel & Co., Springfield, O.
Miller—Miller Machine Works, Springs, Somerset Co., Pa.
O. & S.—Orr & Sembower, Inc., Reading, Pa.
Wheland Company, The, Chattanooga, Tenn.
Witte—Witte Engine Works, Kansas City, Mo.
Wood, S. W., Engine Co., Inc., Clyde, N. Y.

ENGINES, STEAM, ROCKING VALVE.

Allis-Chalmers Co., Milwaukee, Wis.
Filer & Stowell Co., Milwaukee, Wis.
Southern Engine & Boiler Works, Jackson, Tenn.

ENGINES, STEAM AND GAS, ROTARY.

Augustine Automatic Rotary Engine Co., Buffalo, N. Y.
Wing's—L. J. Wing Mfg. Co., New York, N. Y.

ENGINES, STEAM, STATIONARY.

Acme—The Titusville Iron Works Co., Titusville, Pa.
Adams Machine Co., W. T., Corinth, Miss.
Ajax Iron Works, Corry, Pa.
Albany Iron Works, Albany, Ore.
Allis-Chalmers Mfg. Co., Milwaukee, Wis.
American—The American Well Works, Aurora, Ill.
American Well & Prospecting Co., Corsicana, Tex.
Ames Automatic—Ames Iron Works, Oswego, N. Y.
Badenhausen Corp., Cornwell Heights, Pa. "American Ball."
Ball Engine—Ball Engine Co., Erie, Pa.
Baltimore Engine Co., Baltimore, Md.
Bass Foundry & Machine Co., The, Ft. Wayne, Ind.
Bayley Mfg. Co., Milwaukee, Wis.
Bretting Mfg. Co., C. J., Ashland, Wis.
Brownell Co., The, Dayton, O.
Buckeye—Buckeye Engine Co., Salem, O.
Buffalo Pitts Co., Buffalo, N. Y.
Carlin, John H. Machine Co., Pittsburgh, Pa.
Case—The New Britain Machine Co., New Britain, Conn.
Chandler & Taylor Co., Indianapolis, Ind.
Chief—Fitchburg Steam Engine Co., Fitchburg, Mass.
Chuse Engine & Mfg. Co., Mattoon, Ill.
Clark Engine & Boiler Co., Kalamazoo, Mich.
Codd Co., E. J., Baltimore, Md.
Cooper—The G. & C. Cooper Co., Mt. Vernon, O.
Corinth Machinery Co., Corinth, Miss.
Dake Engine Co., Grand Haven, Mich.
Eagle—Progressive Mfg. Co., Torrington, Conn.
Elliott Co., Jeannette, Pa. "Ridgway."
Engberg Electric & Mechanical Works, St. Joseph, Mich.
Enterprise Co., The, Columbiana, O.
Erie Pump & Engine Works, Inc., Erie, Pa.
Farquhar—A. B. Farquhar Co., Ltd., York, Pa.
Filer & Stowell Co., Milwaukee, Wis.
Fitchburg—Fitchburg Steam Engine Co., Fitchburg, Mass.
Fleming—Harrisburg Foundry & Machine Works, Harrisburg, Pa.
Grant Iron Works, Mahanoy City, Pa.
Hamilton—The Hooven, Owens, Rentschler Co., Hamilton, O.
Hardie-Tynes Mfg. Co., Birmingham, Ala.
Harrisburg Standard—Harrisburg Foundry & Machine Works, Harrisburg, Pa.
Henderson, W. K., Iron Works & Supply Co., Shreveport, La.
Hoosier—The Sinker-Davis Co., Indianapolis, Ind.
Hooven, Owens, Rentschler Co., The, Hamilton, O. (Corliss, Poppet Valve, Uniflow).
Leffel—The James Leffel Co., Springfield, O.
Liddell-Tompkins, Liddell Automatic, Liddell-Chambers—Liddell Co., Charlotte, N. C.
Lucey Mfg. Corp., New York, N. Y.
Lufkin Foundry & Machine Co., Lufkin, Tex.
McIntosh-Seymour—McIntosh & Seymour Corp., Auburn, N. Y.
Mesta Machine Co., The, Pittsburg, Pa.
M. I. W.—Mecklenburg Iron Works, Charlotte, N. C.
Model Acme—Automatic Furnace Co., Dayton, O.
Morris Machine Works, Baldwinsville, N. Y.
Monarch Corliss—The H. N. Strait Mfg. Co., Kansas City, Mo.
Murray—Murray Iron Works, Burlington, Ia.
New York Blower Co., Chicago, Ill.
Nordberg—Nordberg Mfg. Co., Milwaukee, Wis.
Oil Well Supply Co., Pittsburgh, Pa.
Orr & Sembower, Inc., Reading, Pa.
Pattin Bros. Co., The, Marietta, O.
Pekor Iron Works, Columbus, Ga.
Phoenix Iron Works Co., Meadville, Pa.
Phoenix Mfg. Co., Eau Claire, Wis.
Porter-Allen—Southwark Foundry & Machine Co., Philadelphia, Pa.
Price Pump & Engine Co., G. W., San Francisco, Cal.
Raleigh Iron Works Co., Raleigh, N. C.
Reading Scale & Machine Co., Reading, Pa.
Regal—Ames Iron Works, Oswego, N. Y.
Rice & Sargent—Providence Engineering Works, Providence, R. I.
Rollins Engine Co., Nashua, N. H.
Safe—A. E. Olmstead & Sons, Pulaski, N. Y.
Schofield—J. S. Schofield's Sons Co., Macon, Ga.
Seymour—James M. Seymour, Newark, N. J.
Skinner—Skinner Engine Co., Erie, Pa.
S. M.—Snell, John H., & Sons, Hamburg, Pa.
Solano—Howard & Morse, New York, N. Y.
Star—Star Drilling Machine Co., Akron, O.
Sturtevant—B. F. Sturtevant Co., Hyde Park, Mass.
Sun Shipbuilding Co., Wetherill Plant, Chester, Pa.
Troy—Troy Engine & Machine Co., Troy, Pa.
Union Iron Works Co., The, Selma, Ala.
Vilter Mfg. Co., The, Milwaukee, Wis.
Vim—Ames Iron Works, Oswego, N. Y.
Wachs Co., The E. H., Chicago, Ill. (Fully enclosed and self oiling.)
Westinghouse—Westinghouse Electric & Mfg. Co., Philadelphia, Pa.
Wheland—Wheland Co., Chattanooga, Tenn.
Young & Sons, E. R., Titusville, Pa.

ENGINES, STEAM, UNIFLOW.

Ames Iron Works, Oswego, N. Y.
Elliott Co., Jeannette, Pa. "Ridgway."
Filer & Stowell Co., Milwaukee, Wis.
Harrisburg Foundry & Machine Works, Harrisburg, Pa.
Hooven, Owens, Rentschler Co., The, Hamilton, O.
Murray Iron Works Co., Inc., Burlington, Iowa.
Nordberg Mfg. Co., Milwaukee, Wis.
Skinner Unaflow—Skinner Engine Co., Erie, Pa.
Stumpf—Stumpf Una-Flow Engine Co., Inc., Syracuse, N. Y.
Swift's Acme—Donnegan & Swift, New York.
Troy—Troy Engine & Machine Co., Troy, Pa.
Unaflow—Kingsford Foundry & Machine Works, Oswego, N. Y.
Universal Unaflow—Skinner Engine Co., Erie, Pa.

ENGINES, STEAM, VERTICAL.

Clarage Fan Co., Kalamazoo, Mich.
Clark Engine & Boiler Co., Kalamazoo, Mich.
Erie Pump & Engine Co., Erie, Pa.
Eureka—Oil City Boiler Works, Oil City, Pa.
Farquhar—A. B. Farquhar Co., Ltd., York, Pa.
Fritz, Geo. J., Foundry & Machine Co., St. Louis, Mo.
Morris Machine Works, Baldwinsville, N. Y.
Murray—Murray Iron Works Co., Burlington, Iowa.
O. & S.—Orr & Sembower, Inc., Reading, Pa.
Shepherd—Shepherd Engineering Co., Williamsport, Pa.
Smith—T. L. Smith Co., The, Milwaukee, Wis.
Snell, J. H., & Sons, Hamburg, Pa.
Sturtevant, B. F., Co., Hyde Park, Mass.
Troy—Troy Engine & Machine Co., Troy, Pa.
Wachs Co., The E. H., Chicago, Ill.
Worthington Pump and Machinery Corp., New York, N. Y.

ENGINES, STEERING, MARINE.

American Engineering Co., Philadelphia, Pa.
American Hoist & Derrick Co., St. Paul, Minn.

Dake Engine Co., Grand Haven, Mich.
Lidgerwood Mfg. Co., New York, N. Y.
Mundy—J. S. Mundy Hoisting Engine Co., Newark, N. J.
Street Brothers Machine Wks., Chattanooga, Tenn.
Superior Iron Works Co., Superior, Wis.

ENGINES, SWINGING.

Clyde Grade—Clyde Iron Works, Duluth, Minn.
Dake Engine Co., Grand Haven, Mich.
Mundy—J. S. Mundy Hoisting Engine Co., Newark, N. J.
O. & S.—Orr & Sembower, Inc., Reading, Pa.
Superior Iron Works Co., Superior, Wis.

ENGINES, TURBINE.

(See "Turbine Engines, Steam.")

ENGRAVERS, ELECTRICAL, FOR MARKING TOOLS.

Gibb Welding Machines Co., Bay City, Mich.

ESCUTCHEONS.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
American Sanitary Mfg. Co., Abingdon, Ill.
Ampinco—American Pin Co., Waterbury, Conn.
Avco—Alliance Vitreous China Co., Alliance, O.
Bay Ridge Specialty Co., Inc., Trenton, N. J.
Beaton & Cadwell Mfg. Co., New Britain, Conn.
Bridgeport Brass Works, Bridgeport, Conn.
Central Brass Mfg. Co., Cleveland, O.
Clean Sweep—Detroit Sanitary Supply Co., Detroit, Mich.
Dearborn Brass Co., Cedar Rapids, Ia.
Douglas Co., John, Cincinnati, O.
Eljer Co., Ford City, Pa.
Federal-Huber Co., Chicago, Ill.
Frost Mfg. Co., Kenosha, Wis.
Goetz Brass Co., Chicago, Ill.
Grammes, L. F., & Sons, Allentown, Pa.
Hassall, John, Inc., Brooklyn, N. Y.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Hutter, Karl, Inc., New York, N. Y.
I. & M.—Ireland & Matthews Mfg. Co., Detroit, Mich.
Lehnert & Co., New York, N. Y.
Ryan, J. J., & Co., Chicago, Ill.
Samsonchina—S. D. Baker Mfg. Co., New York, N. Y.
Sargent & Co., New Haven, Conn.
Seattle Brass Co., Seattle, Wash.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Steele & Johnson Mfg. Co., Waterbury, Conn.
Street & Kent Mfg. Co., Chicago, Ill.
Turner & Seymour Mfg. Co., The, Torrington, Conn.
Waterbury Mfg. Co., Waterbury, Conn.
Wiseco—J. B. Wise, Inc., Watertown, N. Y.
Yale & Towne Mfg. Co., Stamford, Conn.

EXCAVATORS, DRAG-LINE AND TOWER.

Gade—C. L. Gade Excavator Works, Iowa Falls, Iowa.
Harnischfeger Corp., The, Milwaukee, Wis.
Hayward—The Hayward Co., New York, N. Y.
Link-Belt Company, Chicago and Philadelphia.
Marion Steam Shovel Co., The, Marion, Ohio.
Orton & Steinbrenner Co., Chicago, Ill.
Osgood Co., The, Marion, O.
Parsons Co., The, Newton, Ia.

EXCAVATORS, DRAINAGE AND IRRIGATION CANAL.

Gade—C. L. Gade Excavator Works, Iowa Falls, Iowa.
Keystone—Keystone Driller Co., Beaver Falls, Pa.
Marion Steam Shovel Co., The, Marion, Ohio.
Smith, T. L., Co., The, Milwaukee, Wis.

EXCAVATORS, TRENCH.

(See also "Machines, Ditching.")

Gade—C. L. Gade Excavator Works, Iowa Falls, Iowa.
Harnischfeger Corp., The, Milwaukee, Wis.
Hayward—The Hayward Co., New York, N. Y.
Keystone—Keystone Driller Co., Beaver Falls, Pa.
Link-Belt Company, Chicago, Ill.
Marion Steam Shovel Co., Marion, O.
Parsons Co., The, Newton, Ia.

EXCHANGERS, HEAT.

Multiwhirl, Vaneflo — Griscom-Russell Co., New York, N. Y.

EXCITERS, STEAM AND DUPLEX DRIVEN.

Terry Steam Turbine Co., Hartford, Conn.

EXHAUSTERS, SAW DUST, SHAVINGS, ETC.

(See "Collectors, Shavings, Dust, Etc.")

EXHAUSTERS, GAS.

Beach-Russ Co., Brooklyn, N. Y.
Buffalo Forge Co., Buffalo, N. Y.
Carling—Carling Turbine Blower Co., Worcester, Mass. (Small sizes.)
Clarage Fan Co., Kalamazoo, Mich.
Connersville—Connersville Blower Co., Connersville, Ind.
Davis & Farnum Mfg. Co., Waltham, Mass.
Glamorgan Pipe & Foundry Co., Lynchburg, Va.
Leiman Bros., New York City. (Rotary).
Old Reliable—Wilbraham-Green Blower Co., Pottstown, Pa.
Rockwell, W. S., Co., New York, N. Y.
Roots, P. H. & F. M., Co., Connersville, Ind.
Sturtevant—B. F. Sturtevant Co., Hyde, Park, Mass.
Sterling Blower Co., Hartford, Conn.
Terry—Terry Steam Turbine Co., The, Hartford, Conn.

EXPANDERS, FLUE AND TUBE.

Ajax Mfg. Co., Pittsburgh, Pa. (flue and tube). (Trade names—Ajax New Model, Collins, Pittsburgh.)
All-Steel, Frictionless, Lovejoy, Universal—Lovejoy Tool Works, Chicago, Ill.
Arch—Gustave Wiedeke & Co., Dayton, O.
Atlas—The Watson-Stillman Co., New York, N. Y.
Bullock, C. K., Co., Philadelphia, Pa.
Dayton—Gustave Wiedeke & Co., Dayton, O.
Dudgeon, Richard, New York, N. Y.
Faessler's—J. Faessler Mfg. Co., Moberly, Mo.
Fergusons—A. L. Henderer's Sons., Wilmington, Del.
Helwig—Helwig Mfg. Co., St. Paul, Minn.
High Speed—A. L. Henderer's Sons, Wilmington, Del.
Ideal—Gustave Wiedeke & Co., Dayton, O.
Key—Key Boiler Equipment Co., East St. Louis, Ill.
Nicholson—W. H. Nicholson & Co., Wilkesbarre, Pa
Oswego Tool Co., The, Oswego, N. Y. (Trade names—Standard, Western Pattern, World's Champion.)
Prosser—Thomas Prosser & Son, New York, N. Y.
Scully Steel & Iron Co., Chicago, Ill. (and parts).
Victor—Gustave Wiedeke & Co., Dayton, O.
Waltham Appliance Co., Waltham, Mass.

EXPANDERS, HOSE.

Buckley—Larkin Mfg. Co., Dayton, O. (hydraulic).
Elkhart—Elkhart Brass Mfg. Co., Elkhart, Ind.
Schlangen Bros. Co., Chicago, Ill.
Sherman Mfg. Co., H. B., Battle Creek, Mich.

EXPANDERS, LEAD PIPE.

Johnson, Wm., Firm of, Newark, N. J.

EXPLOSIVES.

Du Pont de Nemours, E. I., & Co., Wilmington, Del. Trade Names—Carbonite, Du Pont, Meteor, Arctic, Monobel, Red Cross, Repauno—
Grasselli—Grasselli Powder Co., Cleveland, Ohio.
Hercules Powder Co., Wilmington, Del.
Miners Friend—Atlas Powder Co., Wilmington, Del.

EXTENSION PIECES, BATH TRAP.

Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.

EXTENSION PIECES, WATER CLOSET, CAST IRON.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Alabama Pipe Co., Anniston, Ala.
American Foundry & Mfg. Co., St. Louis, Mo.
Boosey—Greenwood Mfg. Co., Detroit, Mich.
Bridgeport Brass Co., Bridgeport, Conn.
Central Specialty Co., Detroit, Mich.
Chicago Pipe Co., Chicago, Ill.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
Glenn Mfg. Co., St. Charles, Ill.
Gulf States Pipe Corp., Anniston, Ala.
Hammond Iron Corp., Birmingham, Ala.
Herco—Hercules Foundries, Inc., Los Angeles, Cal.
Modern Iron Works, Quincy, Ill.
Rice, Edward J., Mfg. Co., Rochester, N. Y.
Riverside Foundry & Galvanizing Co., Kalamazoo, Mich.
Saaco—Sanitary Company of America, Linfield, Pa.
Stringer Bros. Co., Chicago, Ill.
Swett, A. L., Iron Works, Medina, N. Y.

EXTENSIONS, TAP.

Allen Mfg. Co., Hartford, Conn.

EXTINGUISHERS, FIRE.

Acme—Missouri Lamp & Mfg. Co., St. Louis, Mo.
Ajax—Ajax Fire Engine Works,, Brooklyn, N. Y.
Allen, W. D., Mfg. Co., Chicago, Ill. (chemical).
Atlas, Northern—Northern Fire Apparatus Co., Minneapolis, Minn.
Badger Fire Extinguisher Co., Inc., Boston, Mass.
Boyce Fire Syphon—Boyce & Veeder Co., Inc., Long Island City, N. Y.
Boyer Fire Apparatus Co., Logansport, Ind. "Boyer."
Bridgeport Brass Co., Bridgeport, Conn.
Castle Liberty—James M. Castle, Inc., Philadelphia, Pa. (hand).

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Clay Automatic—John H. Clay, Philadelphia, Pa.
Clipper—New Process Roofing & Supply Co., Dallas, Tex.
Columbia—Columbia Fire Extinguisher Co., New York.
Diener, Geo. W., Mfg. Co., Chicago, Ill. (Trade names—Automatic, Coldproof, Diener, Ever-Ready, First Aid, Geyser, Waggoner.)
Edna Brass Mfg. Co., The, Cincinnati, Ohio (Locomotive).

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Foamite-Childs Corporation, Utica, N. Y. (Trade names—Allweather, Childs, Fire-Gun, Foamite.)
Globe Automatic Sprinkler Co., Philadelphia, Pa.
Hansen Brass Mfg. Co., Grand Rapids, Mich.
Harker Mfg. Co., Cincinnati, O. (Trade names—Queen, Safety First [powder]).
Howard—H. J. M. Howard Mfg. Co., Washington, D. C.
Hygeia—Hygeia Respirator Co., Inc., New York, N. Y.
Ideal—W. J. Foss Company, Springfield, Mass.
Insurance—James B. Hunt Mfg. Co., Trenton, N. J.
Jiffy—Jiffy Fire Hose Rack Co., New York, N. Y.
Johns-Manville Corporation, New York, N. Y. "Success."
Josico—John Simmons Co., New York, N. Y.
Kanawka—James Boyd & Bros., Philadelphia, Pa.
Knight & Thomas Inc., Boston, Mass. (Trade names—Fire Warden, Home Guard, Presto, Protex, Railway & Marine, Underwriters.)
Larkin—Larkin Mfg. Co., Dayton, O.
Miller—Miller-Peerless Mfg. Co., Chicago, Ill.
Missouri Lamp & Mfg. Co., St. Louis, Mo. (Trade names—Acme, Missouri, Phoenix, Royal, Rex, U. S.)
Nuhring, Monitor—Chas. Nuhring & Bro., Cincinnati, Ohio.
Nathan Mfg. Co., New York.
National—Prier Brass Mfg. Co., Kansas City, Mo.
Northern Pump Company, Minneapolis, Minn.
Oceco—The Oil Conservation Engineering Co., Cleveland, O.
Phoenix—Phoenix Fire Extinguisher Co., Norwich, Conn.
Porteous—The Edna Brass Mfg. Co., Cincinnati.
Pyrene Mfg. Co., New York, N. Y. (Trade names—Guardene, Phomene, Pyrene.)
Pyrofoam Company, The, Chicago, Ill.
Rego Fire Stopper—The Bastian-Blessing Co., Chicago, Ill.
Rex Fire Equipment Corp., New York, N. Y.
Robinson Fire Apparatus Mfg. Co., St. Louis, Mo. (Trade names—Aaron, Gold Medal, Stempel.)
Rowe, A. C., & Son, Inc., New York, N. Y.
Safety—The Safety Fire Extinguisher Co., New York.
Stempel Fire Extinguisher Co., St. Louis, Mo.
Weldon—Weldon Mfg. Co., Detroit, Mich.
Wensley Metal Products Co., Denver, Colo.

EXTRACTORS, BOILER TUBE.

Little Giant—John F. Robertson Co., Pittsburg, Pa

EXTRACTORS, BROKEN-TAP.

Walton—The Walton Co., Hartford, Conn.

EXTRACTORS, CENTRIFUGAL.

American Tool & Machine Co., Boston, Mass.
Tolhurst Machine Works, Troy, N. Y.

EXTRACTORS, COTTER PIN.

Chapin-Stephens Co., Pine Meadow, Conn.
Gittatit—The H. D. Smith & Co., Plantsville, Conn.
Goodell-Pratt Co., Greenfield, Mass.
Mossberg Pressed Steel Corp., Attleboro, Mass.
Mound—Mound Tool Co., St. Louis, Mo.
National Tool Co., New York, N. Y.
Pioneer—The Southington Mfg. Co., Southington Conn.
Vichek Tool Co., The, Cleveland, O.

EXTRACTORS AND CUTTERS, RIVET.

Bourne-Fuller Co., The Upson Wks., Unionville, Conn.

EXTRACTORS, GREASE AND OIL.

American Tool & Machine Co., Boston, Mass. (from metal chips).
Blackburn-Smith Corp., The, New York, N. Y.
Boylston—Boylston Steam Specialty Co., Chicago, Ill.
Bros, Wm., Boiler & Mfg. Co., Minneapolis, Minn.
Curtis Machine Co., Worcester, Mass.
De Rycke—Provost Engineering Co., Brooklyn, N. Y.
Elliott Co., Jeannette, Pa. (Trade names—Elliott and Lagonda.)
Hine—James L. Robertson & Sons, New York, N. Y.
Kieley—Kieley & Mueller, New York, N. Y.
Linton Machine Co., The, New York, N. Y.
McAlear Mfg. Co., The, Chicago, Ill.
Mesta Machine Co., Pittsburgh, Pa.
National—National Separator & Machine Co., Boston, Mass.
Peerless—Hussey, McCann & Co., New York, N. Y.
Reilly—Griscom-Russell Co., New York, N. Y.
Springfield—National Separator & Machine Co., Boston, Mass.

EXTRACTORS, SCREW.

Ezy-Out—Cleveland Twist Drill Co., Cleveland, O.

FACERS, CONCRETE, PNEUMATIC.

Dallett—Dallett Co., Philadelphia, Pa.

FACERS, NUT.

Victor—Emmert Mfg. Co., Waynesboro, Pa.
Victor—Landis Machine Co., Victor plant, Waynesboro, Pa.

FACERS, SPOT.

Gairing Tool Co., The, Inc., Detroit, Mich.

FACINGS, CLUTCH.

(See also "Leathers, Friction.")

A. B. C.—American Brake Lining Co., Sellersville, Pa.
Armstrong Cork Co., and Armstrong Cork & Insulation Co., Pittsburgh, Pa.
Chicago Rawhide Mfg. Co., The, Chicago, Ill.
Cork Insert Co., Boston, Mass. (cork insert).
Detroit Oak Belting Co., Detroit, Mich.
Graton & Knight Co., Worcester, Mass.
Jewell Belting Co., Hartford, Conn.
Johns-Manville Corporation, New York, N. Y. "Asbestos-Metallic."
Hide Leather & Belting Co., Indianapolis, Ind. (Trade names—Leathertex, Wetprufe.)
Pulmor—Pulmor Belt Mfg. Co., Fort Wayne, Ind.
Raybestos Co., The, Bridgeport, Conn. "Raybestos."
Rusco—Russell Mfg. Co., Middletown, Conn.
S. M. C.—Staybestos Mfg. Co., Philadelphia, Pa.
Thermoid—Thermoid, Rubber Co., Trenton, N. J.
United States Asbestos Co., Manheim, Pa. "U. S. Asbestos."

FANS.

(See also "Blowers.")

American Blower Co., Detroit, Mich. (Trade names—A. B. C., American H. S., Sirocco, Type D, Ventura.)
Allington & Curtis Mfg. Co., The, Saginaw, Mich.
Autovent—Autovent Fan & Blower Co., Chicago, Ill.
Azor Motor Mfg. Co., The, Cleveland, O. (Trade names—Azor, Azor-Superfan.)
Backus—Backus Water Motor Co., Newark, N. J.
Barney—Barney Ventilating Fan Works, Boston.
Bayley Junior—Bayley Mfg. Co., Milwaukee, Wis.
Berry—A. Hun Berry Fan Co., Boston, Mass.
Brown & Patterson, Brooklyn, N. Y.
Buffalo—Buffalo Forge Co., Buffalo, N. Y.
Burt—The Burt Mfg. Co., Akron, O.
Century—Century Electric Co., St. Louis, Mo.
Champion—Champion Blower & Forge Co., Lancaster, Pa.
Clarage, Kalamazoo, Multiblade—Clarage Fan Co., Kalamazoo, Mich.
Clark, Geo. P., Co., The, Windsor Locks, Conn.
Connellsville Mfg. & Mine Supply Co., Connellsville, Pa.
Coppus Engineering Corp., Worcester, Mass.
Crawford & McCrimmon Co., Brazil, Ind. (Mine).
Crocker-Wheeler Co., Ampere, N. J.
Cyclone Blow Pipe Co., Chicago, Ill.
Davidson Fan Co., Newton, Mass.
Diehl Mfg. Co., Elizabeth, N. J.
Disc—L. J. Wing Mfg. Co., New York, N. Y.
Dixie Mfg. Co., Baltimore, Md.
Emerson, Davidson Blade, Parker Blade—Emerson Electric Mfg. Co., St. Louis.
Empire—Tolhurst Machine Works, Troy, N. Y.
Exeter Machine Works, Exeter, N. H.
Fairbanks-Morse—Fairbanks, Morse & Co., Chicago
Four Leaf Clover—Centrifugal Fan Co., Newark, N. J.
Garden City, Cycloidal—Garden City Fan Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Grand Rapids Blow Pipe & Dust Arrester Co., Grand Rapids, Mich.
Green Fuel Economizer Co., The, Beacon, N. Y.
Green-Matteawan—The Green Fuel Economizer Co., Beacon, N. Y.
Gyrofan—The National Screw & Mfg. Co., A.-B. Products Div., Cleveland, O.
Hope Fan & Blower Co., Kansas City, Mo.
Howard & Morse, Inc., Brooklyn, N. Y.
Hurricane—Eck Dynamo & Motor Co., Belleville, N. J.
Hynes & Cox Electric Corp., Albany, N. Y.
Ilg Electric Ventilating Co., Chicago, Ill.
Improved Appliance Co., Brooklyn, N. Y.
Indiana Fan Co., Indianapolis, Ind. (Trade names—Specialty (belt), Triumph.)
Invincible Blow Pipe & Laundry Equipment Co., The, Chicago, Ill.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Johnson Fan & Blower Co., Chicago, Ill.
Kimble—Kimble Electric Co., Chicago, Ill.
Lehigh—Hersh Bros. Co., Allentown, Pa.
Lundell—Sprague Electric Works, New York, N. Y.
Marvel—Electric Blower Co., Boston, Mass. (electric).
Mathis Bros. Co., Chicago, Ill.
National Blow Pipe & Mfg. Co., Ltd., New Orleans, La.
O. K.—Marathon Electric Mfg. Co., Wausau, Wis.
Peerless—The Peerless Electric Co., Warren, O.
Perkins—B. F. Perkins & Son, Inc., Holyoke, Mass.
Polar Cub—The A. C. Gilbert Co., New Haven, Conn.
Power Turbo Blower Co., New York.
Reliance Electric & Engineering Co., Cleveland, O.
Robbins & Myers Co., The, Springfield, O
Robinson Ventilating Co., Zelienople, Pa. "Robinson Kiln Kooler," "Kiln Accelerator."
Seri-Vane—New York Blower Co., Chicago, Ill.
Seymour—James M. Seymour, Newark, N. J.
Sirocco—American Blower Co., Detroit, Mich.
Specialty—Indiana Fan Co., Indianapolis Ind. (Belt.)
Sprague Electric Wks. of General Electric Co., New York, N. Y.
Star Fan & Motor Works, Newark, N. J.
Sterling—Sterling Blower Co., Hartford, Conn.
Stine Co., The J. C., Tyrone, Pa.
Sturtevant—B. F. Sturtevant Co., Hyde Park, Mass
Thermofans—Schutte & Koerting Co., Philadelphia, Pa.
Tuerk—Hunter Fan & Motor Co., Fulton, N. Y.
Typhoon Fan Co., New York, N. Y.
Ven TaiR—Coppus Engineering Corp., Worcester, Mass.
Western Electric Co., Chicago, Ill.
Westinghouse Electric & Mfg. Co., Philadelphia, Pa.
Wing, L. J., Mfg. Co., New York, N. Y. (disc and screw propeller.) "Scruplex."
Wolf Company, The, Chambersburg, Pa.

FANS, GENERATOR COOLING.

Green Fuel Economizer Co., The, Beacon, N. Y.

FANS, MAN-COOLER.

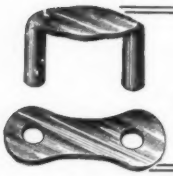
American Blower Co., Detroit, Mich.
Garden City Fan Co., Chicago, Ill.
Perkins, B. F., & Son, Inc., Holyoke, Mass.
Robinson Ventilating Co., Pittsburgh, Pa. "Robinson."

FASTENERS AND HOOKS, BELT.

(See also "Lacing, Belt," and "Studs, Belt.")

Angell Self-Clinching—Angell Belt Hook Co., Providence, R. I.
Blake's—U. T. Hungerford Brass & Copper Co., New York, N. Y.

Bourne-Fuller Co., The, Upson Works, Unionville, Conn. "Standard."
Bridgeport Chain Co., Bridgeport, Conn.
Bristol Co., The, Waterbury, Conn. (Trade names—Bristol's Patent Steel, Bristol-Durand.)
Buffalo Specialty Co., Buffalo, N. Y. "Buffalo."
Bull Dog—Columbia Novelty Mfg. Co., St. Louis, Mo.
Chase—The Strong Machinery & Supply Co., New York, N. Y.
Clipper Belt Lacer Co., Grand Rapids, Mich.
Conn—Asch & Co., New York, N. Y.
Conveying Weigher Co., The, New York, N. Y. "Holtite."
Crescent—Crescent Belt Fastener Co., Inc., New York.
Detroit Belt Lacer Co., Detroit, Mich.
Dixie—Columbia Novelty Mfg. Co., St. Louis, Mo.
Fabric—Hudson Belt Fastener Co., New York, N. Y.
Federal Supply Co., The, Fort Worth, Texas.
Flexible Steel Lacing Co., Chicago, Ill. (Trade names—Alligator, Flexco-High Duty, Turtle.)
Graton & Knight Co., Worcester, Mass. "Moran," "Parker," "Green-Tweed."
Hicks Improved—Hindley Mfg. Co., Valley Falls, R. I.
Hicks—E. Jencks Mfg. Co., Worcester, Mass.
Hudson Belt Fastener Co., New York, N. Y. "Hudson Patent Ideal."
Isaac Jackson Belt Fastener Co., New York, N. Y. "Jackson."
Jacobsen—W. D. Allen Mfg. Co., Chicago, Ill.
Jewell—Jewell Belt Hook Co., Hartford, Conn.
Jones, Harry H., Lancaster, N. H.
Kenehan—H. J. Stow, Chicago, Ill.
Lakewood Fabric Belting & Mfg. Co., Lakewood, O.
Lakewood "Q. A."—The Monarch Belting Co., Cleveland, O.
Manufacturers' Belt Hook Co., Chicago, Ill. (Trade names—Eagle, Eureka, Giant, L. X. (oval pointed), M. Covel, Rival.)
Ne Pac—Capen Belting & Rubber Co., St. Louis, Mo
Petrol—Victor Balata & Textile Belting Co., New York, N. Y.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Prize—The Geo. W. Southwick Co., New York, N. Y.
Quadriga Mfg. Co., The, Chicago, Ill. (round steel).
Raniville, F., Co., Grand Rapids, Mich.
Reinhold Belting & Strap Co., Brooklyn, N. Y.
Sargent & Co., New Haven, Conn.
Sawilco—Angell Belt Hook Co., Providence, R. I.
Sawyer Belt Hook Co., Pawtucket, R. I. (Trade names—Angell, Potter Style, Sawilco, Sawyer Button, Sawyer Clinching, Sawyer Plate, Standard Style.)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Universal—Racine Iron & Wire Works, Racine, Wis.
Universal—The Strong Machinery & Supply Co., New York, N. Y.
Walker—R. & J. Dick Co., Passaic, N. J.

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Flexco, H. D.—Flexible Steel Lacing Co., Chicago, Ill.

FASTENERS, JOINT.

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Shanafelt Mfg. Co., The, Canton, O.

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Hills-McCanna Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, O. "Active."
National—National Engineering Co., Saginaw, Mich.
Perfection—Lake Erie Mfg. Co., Inc., Buffalo, N. Y.
Red Star—Lake Erie Mfg. Co., Inc., Buffalo, N. Y.
Sims—The Sims Co., Erie, Pa.

FEEDERS, BOILER OIL.

Buffalo—Sherwood Mfg. Co., Buffalo, N. Y.
General Brass Company, Detroit, Mich.
Shoo-Fly—Watts Regulator Co., Lawrence, Mass.
Sims—The Sims Co., Erie, Pa.

FEEDERS, BOILER WATER.

Bates—Edward P. Bates, Syracuse, N. Y.
Boylston—Boylston Steam Specialty Co., Chicago, Ill.
Capitol—U. S. Radiator Corp, Detroit, Mich. (heating boiler).
Excelsior—Victoria Metal Co., Erie, Pa.
Gardner—The Gardner Governor Co., Quincy, Ill
Immersed Valve—Nason Mfg. Co., New York, N. Y.
Jamestown Boiler Works, Jamestown, N. Y.
Kieley & Muller, New York, N. Y. "Kieley."
Kitts—Kitts Mfg. Co., Oswego, N. Y. (low pressure).
Koerting—Schutte & Koerting Co., Philadelphia, Pa.
Koven & Bro., L. O., New York, N. Y.
Lindstrom's Machine Works, Allentown, Pa.
Lunkenheimer Co., The, Cincinnati, O.
M. & M.—McDonnell & Miller, Chicago, Ill.
McAlear Mfg. Co., The, Chicago, Ill.
Mahoney Boiler & Radiator Co., Troy, N. Y.
Mueller Steam Specialty Co., Inc., New York, N. Y. "Junior," "H-M," "Rapid," "Duplex."
Nason—Nason Mfg. Co., New York, N. Y.
New Haven—Foskett & Bishop Co., New Haven, Conn.
Odell Pump Corp'n, New York, N. Y.
Powell Co., The, Wm., Cincinnati, O.
Taber—Taber Pump Co., Buffalo, N. Y.
Thermoflex—W. D. Cashin, Boston, Mass.
Twinplex—Boylston Steam Specialty Co., Chicago, Ill.
Watts Regulator Co., Lawrence, Mass.

FEEDERS, FURNACE.

Allington & Curtis Mfg. Co., The, Saginaw, Mich.
Connecticut Blower Corp., Hartford, Conn.
Cyclone—Cyclone Blow Pipe Co., Chicago, Ill.
Dixie Mfg. Co., Baltimore, Md.
Grand Rapids Blow Pipe & Dust Arrester Co., Grand Rapids, Mich.
Link-Belt Company, Chicago and Philadelphia, Pa.
Swartwout—The Swartwout Co., Cleveland, O.
Sterling Blower Co., Hartford, Conn.
Weller Mfg. Co., Chicago, Ill.

FEEDERS, GRAPHITE LUBRICANT.

Auxiliary Plain—The Lunkenheimer Co., Cincinnati, O.

FEEDS, AUTOMATIC, FOR POWER PRESS.

Littell—F. J. Littell Machine Co., Chicago, Ill.
Walsh Press & Die Co., Chicago, Ill.

FEEDS, FRICTION, SAW MILL.

Decatur Fdy., Furnace & Machine Co., Decatur, Ind.
Hill-Curtis Co., Kalamazoo, Mich.
Scarbrough Mfg. Co., Chattanooga, Tenn.

FEEDS, STEAM, SAW MILL.

Dake—Dake Engine Co., Grand Haven, Mich.
Hill-Curtis Co., Kalamazoo, Mich.
Lane Mfg. Co., Montpelier, Vt.
Multnomah Iron Works, Portland, Ore.
Murray—D. J. Murray Mfg. Co., Wausau, Wis.
Soule Steam Feed Works, Meridian, Miss.
Wheland Company, The, Chattanooga, Tenn.

FELT GOODS, MECHANICAL.

Advance Felt & Cutting Co., Chicago, Ill.
Algco—Auburn Leather Goods Co., Hartford, Conn.
Booth—The Booth Felt Co., Brooklyn, N. Y.
Brawley, T. R., Brooklyn, N. Y.
Buffalo Batt & Felt Corp., Depew, N. Y.
Field, R. H., & Co., Worcester, Mass.
Ramshead—Western Felt Works, Chicago, Ill.
Star Felt Cutting Co., The, Brooklyn, N. Y.
Tingue, Brown & Co., New York, N. Y.
Waterproof Felt Works, Chicago, Ill. (waterproof.)

FELT WATERPROOFING.

Waterproof Felt Works, Chicago, Ill.

FELT, OAKUM.

Carey Mfg. Co., Philip, Lockland, O.
Davey Company, The, Jersey City, N. J.
Stratford Oakum Co., Geo., Jersey City, N. J.

FELT, WOOL.

Asbestos Products Co., Chicago, Ill.
Barrett Mfg. Co., New York, N. Y.
Bird, F. W., & Son, East Walpole, Mass.
Carey, Phillip, Mfg. Co., Lockland, O.
Comfort—H. F. Watson & Co., Erie, Pa.
Detroit, Frigid, Superior—C. Stanley Morgan, Detroit, Mich.
Ehret Magnesia Mfg. Co., Philadelphia, Pa.
Garrett, C. & S., Co., Philadelphia, Pa.
Genasco—The Barber Asphalt Co., Philadelphia, Pa.
Illinois Fire Proof Covering Co., Chicago, Ill.
Insulating—H. F. Watson & Co., Erie, Pa.
Johns-Manville Corporation, New York, N. Y.
National Asbestos Mfg. Co., Jersey City, N. J.
Superior—H. F. Watson & Co., Erie, Pa.
Union Fibre Co., Winona, Minn.

FERRULES, BRASS.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Albrass Co., Inc., Coxsackie, N. Y.
American Brass & Copper Co., The, New York, N. Y.
American Brass Mfg. Co., The, Cleveland, O.
American Foundry & Mfg. Co., St. Louis, Mo.
American Sanitary Mfg. Co., Abingdon, Ill.
Athol Pump Co., Athol, Mass.
Ayling & Reichert Co., Toledo, O.
Baumgarten & Wyler, El Paso, Tex.
Blake Specialty Co., Inc., Rock Island, Ill.
Brey & Krause Mfg. Co., Allentown, Pa.
Clarksville Foundry & Machine Works, Clarksville, Tenn.
Commonwealth Brass Corp., Detroit, Mich.
Exeter Brass Works, Exeter, N. H.
Flannery, P. J., Co., New Britain, Conn.
Franklin Brass Foundry, Long Island City, N. Y.
Gilbert, A., & Sons, Brass Foundry Co., St. Louis, Mo.
Grammes, L. F., Mfg. Co., Inc., Allentown, Pa.
Haydenville Co., The, Haydenville, Mass.
Hilton Brass Foundry, Hilton, N. J.
Humphreys Mfg. Co., The, Mansfield, O.
Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Loyal Brass Co., Cleveland, O.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
McShane Bell Foundry Co., Baltimore, Md.
Midland Mfg. Co., Fort Worth, Tex. "Midland."
Mt. Carmel Mfg. Co., The, Mount Carmel, Conn.
North Star Foundry Co., Minneapolis, Minn.
Oberndorf Mfg. Co., Pittsburgh, Pa.
Peck Bros. & Co., The, New Haven, Conn.
Penn—East Penn Foundry Co., Macungie, Pa.
Perkes Co., Charles, Philadelphia, Pa.
Peru Brass & Mfg. Co., Peru, Ind.
Prier Brass Mfg. Co., Kansas City, Mo.
Reading Brass Works, Reading, Pa.
Richmond Foundry & Mfg. Co., Richmond, Va.
Rockford Brass Works, Rockford, Ill.
Russell, John M., Mfg. Co., Inc., The, Naugatuck, Conn.
Savill's, Thomas, Sons, Philadelphia, Pa.
Seattle Brass Co., Seattle, Wash.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Star—U. T. Hungerford Brass & Copper Co., New York, N. Y.
Stebbins, E., Mfg. Co., Springfield, Mass.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
Victory—Dalton-Ingersoll Mfg. Co., Boston, Mass.
Waterbury Mfg. Co., Waterbury, Conn.
Wells Chemical Bronze Works, Worcester, Mass.
Wolff Mfg. Corp., Chicago, Ill.

FERRULES, COMBINATION, LEAD AND IRON.

American Foundry & Mfg. Co., St. Louis, Mo.
American Smelters Securities Co., San Francisco, Cal.
Athol Pump Co., Athol, Mass.
Bachmann Bros., La Porte, Ind.
Baker Lead Mfg. Co., Worcester, Mass.
B. H. B.—Northwest Lead Co., Seattle, Wash.
Blatchford, E. W., Co., Chicago, Ill.
Blatchford—National Lead Co., Chicago, Ill.
Chadwick-Boston Lead Co., Boston, Mass.
Common Sense—Chas. Millar & Son Co., Utica, N. Y.
Cooper—The Wordell Plumbing Co., Taunton, Mass.
Crampton-Farley Brass Co., Kansas City, Mo.
Eagle-Picher Lead Co., Cincinnati, O.
Gardiner Metal Co., Chicago, Ill.
Gardner Brass Works, Boston, Mass.
Gibson & Price Co., Cleveland, O.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Mueller Co., Decatur, Ill.
National Lead Co., New York, N. Y.
Raymond Lead Works, Chicago, Ill.
Richmond Foundry & Mfg. Co., Richmond, Va.
Robertson, James, Lead Co., Baltimore, Md.
Standard Brass & Iron Works, Milwaukee, Wis.
Union Brass & Metal Mfg. Co., St. Paul, Minn
United Lead Co., New York, N. Y.
Wensley Metal Products Co., Denver, Colo.
Windsor Mfg. Co., Milwaukee, Wis.
Wolff Mfg. Corp., Chicago, Ill.

FERRULES, CONDENSER.

Bridgeport Brass Co., Bridgeport, Conn.
Richardson Brass Co., Edro, Baltimore, Md.

FERRULES, COPPER, BOILER AND HEATER TUBE.

Bridgeport Brass Co., Bridgeport, Conn.
Bros, Wm., Boiler & Mfg. Co., Minneapolis, Minn.
Connecticut Brass & Mfg. Corp., Waterbury, Conn.
Hussey, C. G., & Co., Pittsburgh, Pa.
Rome Mfg. Co., Rome, N. Y.
Scully Steel & Iron Co., Chicago, Ill.

FERRULES, HOSE.

Salisbury & Co., W. H., Chicago, Ill.
Schrader Universal—A. Schrader's Sons, Inc., Brooklyn, N. Y.

FERRULES, IRON, DRIVE.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Alabama Pipe Co., Anniston, Ala.
American Foundry & Mfg. Co., St. Louis, Mo.
Atchison Specialty Mfg. Co., Atchison, Kans. "Asco."
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Blake Specialty Co., Rock Island, Ill.
Casey-Hedges Co., Chattanooga, Tenn.
Chicago Pipe Co., Chicago, Ill.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
Eclipse—John C. Kupferle Foundry Co., St. Louis, Mo.
Greenwood Mfg. Co., Detroit, Mich. (Trade names—Boosey, Feather Edge.)
Glenn Mfg. Co., St. Charles, Ill.
Gulf States Pipe Corp., Anniston, Ala.
Hays Mfg. Co., Erie, Pa.
Illinois Malleable Iron Co., Chicago, Ill. "Imico."
Milford Iron Foundry, Milford, Mass.
Modern Iron Works, Quincy, Ill.
Phoenix Brass Foundry, Irvington, N. J.
Q-S Sanitary Mfg. Co., Waterloo, Iowa.
Richmond Foundry & Mfg. Co., Richmond, Va.
Sanitary Company of America, Linfield, Pa.
Swett, A. L., Iron Works, Medina, N. Y.
Tri-One—Central Specialty Co., Detroit, Mich.
Wolverine Foundry Co., Detroit, Mich.

FERRULES, IRON, SOIL PIPE.

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Atchison Specialty Mfg. Co., Atchison, Kans. "Asco."
Blake Specialty Co., Inc., Rock Island, Ill.
Butler, Thos. F., Lorain, O.
Gulf States Pipe Corp., Anniston, Ala.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
J. R. S. Specialties Mfg. Co., Inc., New York, N. Y.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Modern Iron Works, Quincy, Ill.
Sanitary Company of America, Linfield, Pa.
Walworth Company, Boston, Mass.

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Raymond Lead Works, Chicago, Ill.
Robertson, James, Lead Co., Baltimore, Md.
United Lead Co., New York, N. Y.
Wensley Metal Products Co., Denver, Colo.
Windsor Mfg. Co., Milwaukee, Wis.

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Albrass Co., Inc., Coxsackie, N. Y.
American Foundry & Mfg. Co., St. Louis, Mo.
Bignall Co., The, Medina, N. Y.
Blake Specialty Co., Rock Island, Ill.
B. & F. Mfg. Co., Inc., Indianapolis, Ind.
Casey-Hedges Co., The, Chattanooga, Tenn.
Exeter Brass Works, Exeter, N. H.
Franklin Brass Foundry, Long Island, N. Y.
Fries & Co., Buffalo, N. Y.
Guilderland Foundry Co., Guilderland, N. Y.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Kupferle, John C., Foundry Co., St. Louis, Mo.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Modern Iron Works, Quincy, Ill.
Mueller Co., Decatur, Ill.
Newbury Mfg. Co., Monroe, N. Y.
Peck Bros. & Co., The, New Haven, Conn.
Pittsburgh Valve & Fittings Co., Barberton, O.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Prier Brass Mfg. Co., Kansas City, Mo.
Reading Brass Works, Reading, Pa.
Reading Foundry & Supply Co., Reading, Pa.
Richmond Foundry & Mfg. Co., Richmond, Va.
Sanitary Company of America, Linfield, Pa.
Swett, A. L., Iron Works, Medina, N. Y.
Treaty Co., The, Greenville, Ohio.
Washington Metal Products Co., Inc., Washington C. H., Ohio.
Wolverine Foundry Co., Detroit, Mich.

FERRULES, UNION.

Athol Pump Co., Athol, Mass.
Bignall Co., The Medina, N. Y.
Blatchford, E. W., Co., Chicago, Ill.
Eclipse—John C. Kupferle Foundry Co., St. Louis.
Zurn, J. A., Mfg. Co., Erie, Pa.

FERRULES, VENT AND CLEANOUT.

Albrass Co., Inc., Coxsackie, N. Y.
American Foundry & Mfg. Co., St. Louis, Mo.
Conrad Foundry Co., Elizabeth, N. J.
Eclipse—John C. Kupferle Foundry Co., St. Louis, Mo.
Exeter Brass Works, Exeter, N. H.
Garvie Pat.—Peck Bros. & Co., New Haven, Conn.
Jumbo Heater & Mfg. Co., The, Cleveland, O.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Prier Brass Mfg. Co., Kansas City, Mo.
Red Top—Q-S. Sanitary Mfg. Co., Waterloo, Iowa.
Richmond Foundry & Mfg. Co., Richmond, Va.
Testite—The Groeniger Mfg. Co., Columbus, O.

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Wilmington Fibre Specialty Co., New Castle, Del. (Trade names—Fiberoid, Wilmington Fibre.)

FILERS, SAW.

(See also "Machinery, Saw Setting and Filing")

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Covel—Machinery Co. of America, Big Rapids, Mich.
Creasy Rotary Filer Co., Ballinger, Texas.
Foley Saw Tool Co., Minneapolis, Minn.
Hamilton Beach—Hamilton Beach Mfg. Co., Racine, Wis. (electric).
Olny, Black Diamond—Black Diamond Saw & Machine Works, Natick, Mass.
Rogers, Samuel C., & Co., Buffalo, N. Y.
Southern Saw Works, Atlanta, Ga.
Stearns, E. C., & Co., Syracuse, N. Y.
Wardwell Mfg. Co., The, Cleveland, O.

FILES.

Akron File Co., Akron, O.
Anheuser Mfg. Co., Racine, Wis.
Atkins, E. C., & Co., Indianapolis, Ind.
Bernz, Otto, Co., Indianapolis, Ind.
Black Diamond—G. & H. Barnett Co., Philadelphia Pa.
Black King—Rex File Co., The, Newcomerstown, O
Buckeye Belting & Supply Co., The, Cleveland, Ohio. "Nol Vex."
Chelsea—Chelsea File Works, Inc., The, Norwich, Conn. (hand cut).
Chicago File & Rasp Co., Grand Haven, Mich.
Delta—Delta File Works, Philadelphia, Pa. (hand utility files, flat, half round, round and square).
Delta Swiss Pattern—Delta File Works, Philadelphia, Pa.
Disston, Henry & Sons, Inc., Philadelphia, Pa.
Graves File Co., The, Newark, N. J.
Grobet—Grobet File Corp. of America, New York, N. Y.
Grover File Co., Nashua, N. H. "Grover File Kit," "J. B. G.," "Pitfield Cut."
Handy—The Martindale Electric Co., Cleveland, O. (commutator slotting).
Heller Bros. Co., Newark, N. J. (Trade names—American Pattern, Swiss Pattern, Vixen.)
Hoe, R., & Co., Inc., New York. (saw).
Madden, R. H., Co., Inc., Middletown, N. Y.
McCaffrey File Co., Philadelphia, Pa. "McCaffrey."
Moore Bros., Jamestown, N. Y.
Nicholson File Co., Providence, R. I. (Trade names—American, Arcade, Eagle, Great Western, J. Barton Smith, Kearney & Foot, McClellan, Superior, Spark, Tungsten, X.F. Swiss Pattern.)
Ohlen-Bishop Co., The, Columbus, Ohio.
Plumb—Fayette R. Plumb, Inc., Philadelphia, Pa.
Rex—Rex File Co., The, Newcomerstown, O.
Reynolds Bros., Columbus, O.
Shearkleen—Service Tool Corp., Latrobe, Pa.
Simonds Saw & Steel Co., Fitchburg, Mass.
Stars & Cross—American Swiss File & Tool Co., Elizabeth, N. J. (Precision, diemakers', toolmakers', jewelers' and machinists'.)
Stearns, E. C., & Co., Syracuse, N. Y.
Stokes Bros. Mfg. Co., Freehold, N. J.
Swedish Pansar—Scandinavian Western Importing Co., Ltd., New York, N. Y.
Tacony Igniter, Tacony Swiss—Tacony File & Hardware Co., Inc., Tacony, Pa.
Tragle Mfg. Co., Inc., Reading, Pa.

Triplex Diamond—Whitaker Mfg. Co., Chicago, Ill.
Trojan, Troy Best, American Swiss Pattern, Swiss Pattern—Troy File Works, Troy, N. Y.
Valeau—Walls Sales Corp., New York.
Vixen Tool Co., Newark, N. J.
Wave Cut File & Tool Corp., Chicago, Ill.

FILES, MAGNETO OR COIL, AUGER BIT, BRASS AND BABBITT.

Delta—Delta File Works., Philadelphia, Pa.
Igneto, Igneto Jr., Tungsto—Tacony File & Hdwe. Co., Inc., Philadelphia, Pa.
Moore Bros., Jamestown, N. Y.

FILES, ROTARY.

Strand, N. A., & Co., Chicago, Ill.

FILES, SIDE.

Atkins, E. C., & Co., Indianapolis, Ind.

FILLERS, BARREL, AUTOMATIC.

Moran—Moran Flexible Steam Joint Co., Louisville, Ky.
Morrison—Morrison Bros., Dubuque, Ia.

FILLER OR INSULATION, CONDUIT.

Ric-Wil Company, The, Cleveland, O.

FILLERS, IRON.

(See "Cement, Iron.")

FILLERS, OILER.

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Boylston's—Chicago Engineer Supply Co., Chicago, Ill.
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Eagle—Eagle Mfg. Co., Wellsburg, W. Va.
Gem—Gem Mfg. Co., Pittsburgh, Pa.
Knapp Mfg. & Supply Co., New York, N. Y.
National Marine Lamp Co., The, Forestville, Conn.
Wall, P., Mfg. & Supply Co., The, Pittsburgh, Pa.
Walters Mfg. Co., Pittsburgh, Pa.

FILLET, LEATHER AND WOOD.

Bond, Charles, Co., Philadelphia, Pa.
Chain Products Co., The, Cleveland, Ohio.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Everett, A., & Son, Auburn, N. Y.
Knight, H. W., & Son, Seneca Falls, N. Y.
Obermayer, S. Co., The, Cincinnati, Ohio.
Page Belting Co., Concord, N. H.
Perfect—The Dunker Supply Co., Canton, O.
Perfection—W. S. Nott Co., Minneapolis, Minn.
Shanafelt Mfg. Co., The, Canton, O.
Tennison, G. E., Cincinnati, O.

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Filter-Cel—Celite Products Co., Chicago, Ill.
Star—Wm. Welsh, 2733 Arbor St., Cincinnati, Ohio.

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Federal Pneumatic Systems, Inc., Chicago, Ill.
Glamorgan Pipe & Foundry Co., Lynchburg, Va.
Midwest Air Filters, Inc., Bradford, Pa.
Staynew Filter Corp'n, Rochester, N. Y.

FILTERS, CISTERN.

Martens—The Fort Wayne Filter Co., Fort Wayne, Ind.

FILTERS AND PURIFIERS, FEED WATER.

American—American Water Softener Co., Philadelphia, Pa.
Blackburn-Smith Corp., The, New York, N. Y.
Borromite Co. of America, The, Chicago, Ill.
Berry—The Berry Engineering Co., Chester, Pa
Buhring—Buhring Water Purifying Co., New York, N. Y.
Burt Mfg. Co., Akron, O. (Trade names—American, Cross, Warden.)
Colles—Colles Heater Co., Chicago, Ill.
Elliott Co., Jeannette, Pa. "Elliott."
Eureka—Dodge Mfg. Corp., Mishawaka, Ind.
Goade Water Filter & Mfg. Co., Allentown, Pa.
Graver Corporation, East Chicago, Ind.
G. R. Multiscreen—Griscom-Russell Co., New York.
Hoppes—The Hoppes Mfg. Co., Springfield, O.
International—International Filter Co., Chicago, Ill.
Koven & Bro., L. O., Jersey City, N. J.
Permutit—Permutit Co., New York, N. Y.
Refinite—The Refinite Co., Omaha, Neb.
Ross Valve Mfg. Co., Inc., Troy, N. Y. "Trojan."
Swan—Klipfel Mfg. Co., Chicago, Ill.
Swartwout Company, The, Cleveland, O.
Vater—Power Plant Specialty Co., Chicago, Ill.
Victoria Metal Co., Erie, Pa.
Webster—Warren Webster & Co., Camden, N. J.
Whitlock Coil Pipe Co., The, Hartford, Conn.

FILTERS, OIL.

Acme—Walter L. Flower Steam Specialty Co., St. Louis, Mo.
American Automatic—Spaulding & Metcalf, Philadelphia, Pa.
Bartow—Hall Mfg. Co., Harrison, N. J.
Billow—National Supply Co., Chicago.
Bonar—James Bonar & Co., Pittsburg, Pa.
Bowser—S. F. Bowser & Co., Ft. Wayne, Ind.
Centrifugal—Oil & Waste Saving Machine Co., Philadelphia, Pa.
Duplex, Multiplex, Simplex—Famous Filter Co., St. Louis, Mo.
Elliott—Elliott Co., Jeannette, Pa.
Fairbanks-Morse—Fairbanks, Morse & Co., Chicago.
Fitts—Frank E. Fitts Mfg. & Supply Co., Boston, Mass.
Goade Water Filter & Purifier Mfg. Co., Allentown, Pa. (oil and water for ice plants).
Halls—Hall Mfg. Co., Harrison, N. J.
Koven, L. O., & Bros., Jersey City, N. J.
Lalor Fuel Oil System Co., Baltimore, Md.
National—National Separator & Machine Co., Boston, Mass.
National Marine Lamp Co., Forestville, Conn.
Nelson—John Acton, Brooklyn, N. Y.
Nugent—Wm. W. Nugent & Co., Chicago, Ill.
Perfect—Bousman Mfg. Co., Grand Rapids, Mich.
Perfection—Handlan-Buck Mfg. Co., St. Louis, Mo.
Permutit—Permutit Co., New York, N. Y.
Peterson—Richardson Phenix Co., Milwaukee, Wis.
Phenix—The Richardson-Phenix Co., Milwaukee, Wis.
Robertson Dry System—John F. Robertson Co., Pittsburgh, Pa.
Sexton Can Co., Boston, Mass.
Sims—The Sims Co., Erie, Pa.
Springfield—National Separator & Machine Co., Boston, Mass.
Strong's Improved—The Strong Machinery & Supply Co., New York, N. Y.
Turner—Turner Oil Filter Co., Niles, Mich.
Walters Mfg. Co., Pittsburgh, Pa.
Wayne Tank & Pump Co., Ft. Wayne, Ind.
White Star—Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
Wiley Improved—New York Oil Cabinet Co., New York, N. Y.

FILTERS, WATER.

Acorn, Advance—Acorn & Advance Filter Co., New York, N. Y.
Allen Germ Proof—The Allen Filter Co., Toledo, O.
American Tripoli Co., Seneca, Mo.
American—American Water Softener Co., Philadelphia.
Ansonia Mfg. Co., Ansonia, Conn.
Bishop & Babcock Co., The, Cleveland, O.
Blessing—New York Continental Jewell Filtration Co., Nutley, N. J.
Boston Water Purifiers—Boston Filter Co., Chelsea, Mass.
Buhring-Cummings—Buhring Water Purifying Co., New York, N. Y.
Carter—Field Force Pump Co., Elmira, N. Y.
Continental—New York Continental Jewell Filtration Co., Nutley, N. J.
Cummings—The Cummings Filter Co., Pittsburg, Pa.
Elliott Co., Jeannette, Pa.
Everson Filter Co., Chicago, Ill.
Excelsior—Buffalo Mfg. Co., Buffalo, N. Y.
Exeter Brass Works, Exeter, N. H.
Federal Water Softener Co., Chicago, Ill.
Fort Wayne Filter Co., Fort Wayne, Ind. "Martens," "Rex."
Goade Water Filter & Purifier Mfg. Co., Allentown Pa.
Graver Corporation, East Chicago, Ind.
Griscom & Russell Co., New York, N. Y.
Hungerford & Terry, Inc., Clayton, N. J. (Trade names—Hungerford, Inversand.)
Hyatt—New York & Continental Jewel Filtration Co., Nutley, N. J.
Hygeia Filter Co., Detroit, Mich. (Trade names—Hygeia Agitator, Hygeia Non-Agitator, Bowden, Eclipse, Lynn, Monarch, Monitor, Purity.)
Imperial—Imperial Filter Co., St. Louis, Mo.
International—International Filter Co., Chicago, Ill.
Jewell—New York Continental Jewel Filtration Co., Nutley, N. J.
Jewell Polar Co., Chicago, Ill.
Jewett—Buffalo Mfg. Co., Buffalo, N. Y.
Jones Mfg. Co., Boston, Mass. Trade names—Glass Gem, Hub, Modern, Mystic, No Splash.
Kennicott—Kennicott Water Softener Co., Chicago Heights, Ill.
Knoble—The Knoble Filter Co., Chicago, Ill.
Koven & Bros., L. O., Jersey City, N. J.
Loeber, Henry G., Company, New York, N. Y.
Loomis-Manning Filter Co., Philadelphia, Pa.
McNally Duplex—Robert J McNally, Germantown, Pa.
Mountain Spring—Chas. Hess Co., New York, N. Y.

National—New York Continental Jewell Filtration Co., Nutley, N. J.
New Era—Buffalo Mfg. Co., Buffalo, N. Y.
New York—New York Continental Jewell Filtration Co., Nutley, N. J.
Norwood Engineering Co., Florence, Mass.
Noxall—American Filter Co., Milwaukee, Wis.
Paddock—Atlantic Filter Co., Buffalo, N. Y.
Permutit—The Permutit Co., New York, N. Y.
Phillips—Garrison-Heiland Corp., New York, N. Y.
Pittsburgh Filter & Eng. Co., Pittsburgh, Pa.
Power Plant Specialty Co., Chicago, Ill.
Puro Filters Corp., New York, N. Y.
Rapid Safety Filter Co., New York, N. Y.
Refinite—The Refinite Co., Omaha, Neb.
Reiter Co., Elgin, Ill.
Reilly—The Griscom-Russell Co., New York, N. Y.
Roberts Filter Mfg. Co., Darby, Pa.
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.
Seneca, Ozark, Tourist—E. L. Miller Mfg. Co., Kansas City, Mo.
Sheak—The Sheak Filter Co., Binghamton, N. Y.
Standard Filter Co., Chicago, Ill.
Star—William Welsh, 2733 Arbor Ave., Cincinnati, O.
Strong Machinery & Sup. Co., New York, N. Y.
Tripoli—J. A. Zurn Mfg. Co., Erie, Pa.
Tripoli Stone—American Tripoli Co., Seneca, Mo.
Victoria Metal Co., Erie, Pa.
Warren—New York Continental Jewell Filtration Co., Nutley, N. J.
Wheelwright, Louis, New York, N. Y.
Wilson—Norwood Engineering Co., Florence, Mass.
"X"—"X" Laboratories, New York, N. Y.

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Schaffer, Chas. W., Co., Philadelphia, Pa.

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Johnson, Bernard F., Jersey City, N. J.
Marvin & Casler Co., Canastota, N. Y.

FIRE POTS, PLUMBERS'.

(See "Furnaces, Soldering.")

FIREBOXES, DETACHABLE, FOR TUBULAR BOILERS.

Herbert—Herbert Boiler Co., Chicago, Ill.

FIRECLAY.

Atlas Mineral Products Co., The, Allentown, Pa.
Claybestos—Federal Asbestos Co., Paterson, N. J.
Hill & Griffith Co., Cincinnati, O.

FIRE ENGINES, CHEMICAL.

(See "Engines, Fire.")

FIRE ESCAPES.

Baizley Iron Works, The John, Philadelphia.
Bliss, E. W., Co., Brooklyn, N. Y.
Clarks—Rope Fire Escape Co., Philadelphia, Pa. (and metal cable)
Columbus Wire & Iron Works, Columbus, O.
Potts Manufacturing Co., Mechanicsburg, Pa.
Sheer Bros. Fence & Iron Co., Cleveland, O.
Standard Conveyor Co., North St. Paul, Minn.
Tierney, J. P., Philadelphia, Pa. (Rope).

FIRE EXTINGUISHER, LIQUID.

Castle, James M., Inc., Philadelphia, Pa.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Queen—Harker Mfg. Co., Cincinnati, O.

FIRE EXTINGUISHER RECHARGES, DRY.

Diener, Geo. W., Mfg. Co., Chicago, Ill.
Queen—Harker Mfg. Co., Cincinnati, O.

FIRE EXTINGUISHERS.

(See "Extinguishers, Fire.")

FITTINGS, AIR BRAKE.

Crane Co., Chicago, Ill.
Illinois Malleable Iron Co., Chicago, Ill.
Flagg & Co., Stanley G., Philadelphia, Pa.
Walworth Company, Boston, Mass.
Westinghouse Air Brake Co., Pittsburg, Pa.

FITTINGS, AMMONIA AND BRINE.

Armstrong Machinery Co., Spokane, Wash.
Baker Ice Machine Co., Omaha, Nebr.
Carbondale Machine Co., The, Carbondale, Pa.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Edward—Edward Valve & Mfg. Co., East Chicago, Ind.
Hydraulic Press Mfg. Co., The, Columbus, O. "H. P. M."
K—Kuhns Bros., Dayton, O.
Lukomski Bros. Co., Detroit, Mich.
Milwaukee Steam Appliance Co., West Allis, Wis.
Oil Well Supply Co., Pittsburg, Pa.
Rempe Co., Chicago, Ill.
R. D.—The Ruemmelli-Dawley Mfg. Co., St. Louis, Mo.
Simmons Pipe Bending Works, Newark, N. J.
Tight Joint—Martin-Morse Corp., New York, N. Y.
Viter Mfg. Co., The, Milwaukee, Wis.
Vogt, Henry, Machine Co., Louisville, Ky. (drop forged steel).
Walworth Company, Boston, Mass.
Williams, J. H., & Co., Brooklyn, N. Y.

FITTINGS, FURNISHINGS OR ACCESSORIES, BATH AND TOILET ROOM.

(See also "Cabinets, Toilet Paper," "Cabinets, Medicine," "Stools, Bath," etc.)

Acme Specialty Mfg. Co., The, Toledo, O.
American Brass Novelty Co., Grand Haven, Mich.
Avco—The Alliance Vitreous China Co., Alliance, O.
Bache, Semon & Co., New York, N. Y.
Balmer, J. H., Mfg. Co., Newark, N. J. (Trade names—Easy Set, Unity.)
Bathwhite—E. H. Tichener & Co., Binghamton, N. Y.
Bay Ridge Specialty Co., Inc., Trenton, N. J. (Trade names—All White, All Right, American Beauty, Recess Line, Chinalite).
Brasscrafters—J. P. Eustis Mfg. Co., Boston, Mass.
Brey & Krause Mfg. Co., Allentown, Pa.
Canfield, H. O., Co., Bridgeport, Conn.
Central Specialty Mfg. Co., Chicago, Ill.
Coleman, Allan J., Chicago, Ill.
Columbus Brass Co., Columbus, O.
Chicago Pottery Co., Chicago, Ill.
Dallas Brass & Copper Co., Chicago, Ill.
Doerco—Doerr Glass Co., Vineland, N. J.
Durand Steel Locker Co., Chicago, Ill.
Eastern Specialty Mfg. Co., Scranton, Pa. (Trade names—Eastern, Ivorine.)
Ebco—D. A. Ebinger Sanitary Mfg. Co., Columbus, O.
Edwardsville Brass Co., Edwardsville, Ill.
Eljer Co., Ford City, Pa.
Fairfacts Co., Inc., New York, N. Y. (Trade names—Biltin China, Fairfacts China.)
Federal-Huber Co., Chicago, Ill.
Femco—The Frost Mfg. Co., Kenosha, Wis.
Garden City Plating & Mfg. Co., Chicago, Ill.
Garrison-Heiland Corp., New York, N. Y.
Goetz Brass Company, Chicago, Ill.
Golco Sanitary System, Inc., Philadelphia.
W. R. Hughes Co., Inc., The, New York, N. Y. (Trade names—Enamo, Tilein.)
Good Mfg. Co., Inc., New York, N. Y.
Haydenville Co., The, Haydenville, Mass.
Hoegger, Joseph A., Inc., Jersey City, N. J.
Humphryes Mfg. Co., The, Mansfield, O.
Hutter Carl, Inc., New York, N. Y.
Kohler Co., Kohler, Wis.
Lehnert & Co., New York, N. Y.
Mackay-Fuller Co., The, Meriden, Conn.
Maid-en-White—Autoyre Co., Oakville, Conn.
Maddock's, Thos., Sons Co., Trenton, N. J.
Manhattan Brass Co., New York, N. Y.
Metal Crafters, The, East Stroudsburg, Pa.
Mott, J. L., Iron Works, The, Trenton, N. J.
Natwine—Wickwire-Spencer Steel Co., New York, N. Y.
Newman Mfg. Co., The, Cincinnati, O.
Nurre Mirror Plate Co., The, Bloomington, Ind.
Omala—Galard Co., Newark, N. J. (white).
Palette—Searls Mfg. Co., Newark, N. J.
Parker, Chas., Co., Meriden, Conn.
Peck Bros. & Co., New Haven, Conn. (Trade names—Crown, Rival, Universal.)
Perfection—Beaton & Cadwell Mfg. Co., New Britain, Conn.
Porceloid—Sanitary Specialties Co., Philadelphia, Pa.
Queen Mfg. Co., Chicago, Ill.
Richards, Benjamin, & Co., Winsted, Conn.
Richardson, Edro, Brass Co., Baltimore, Md.
Ringco—American Ring Co., Waterbury, Conn.
Russell, John M., Mfg. Co., Inc., The, Naugatuck, Conn. (white enamel).
Samsonchina—S. D. Baker Mfg. Co., New York, N. Y.
Sanitary Specialties Co., Philadelphia, Pa.
Sanoid—Conant Bros. Co., Somerville, Mass.
San-O-La—Art Brass Co., The, New York, N. Y.
Sargent & Co., New Haven, Conn.
Shafco—The Chas. W. Schaffer Co., Philadelphia, Pa.
Sillcocks-Miller Co., South Orange, N. J. (Trade names—Celluvarno, Simco.)
Silver & Co., Brooklyn, N. Y.
Smith, E. C., Mfg. Co., Chicago, Ill.
Sno-Wite—American Enameled Products Co., Chicago, Ill.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Superior Brass Novelty Co., New York, N. Y.
Union Porcelain Works, Inc., Brooklyn, N. Y.
Universal—Landers, Frary & Clark, New Britain, Conn.

Washburn Co., The, Wire Goods Co. Div., Worcester, Mass.
Wilwear—The Novelty Mfg. Co., Waterbury, Conn.
White Pyralin—C. F. Church Mfg. Co., Holyoke, Mass.
Wolff Mfg. Corp., Chicago, Ill.

FITTINGS, BRASS, IRON PIPE SIZES.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Exeter Brass Works, Exeter, N. H.
General Brass Company, Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Powell, Wm., Co., The, Cincinnati, O.
Richardson Brass Co., Edro, Baltimore, Ohio.
Walworth Company, Boston, Mass.

FITTINGS AND TRIMMINGS, CLOSET AND URINAL STALL.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
American Pin Co., Waterbury, Conn.
American Sanitary Mfg. Co., Abingdon, Ill.
Atkinson Co., The, Rochester, N. Y.
B. B.—Boston Brass Co., Waltham, Mass.
Bennett—Sacket Foundry Co., Los Angeles, Cal.
Brey & Krause Mfg. Co., Allentown, Pa.
Buffalo Mfg. Co., Buffalo, N. Y.
C. & D. Coyne & Delany Co., Brooklyn, N. Y.
Columbus Brass Co., The, Columbus, O. (Trade names—Climax, Columbus, Eclipse, Fil. Miami, Neptune.)
Dearborn Brass Co., Cedar Rapids, Ia.
Dent Hardware Co., Bangor, Pa.
Douglas, John, Co., The, Cincinnati, O.
Edwardsville Brass Works, Edwardsville, Ill.
Em Ess—The Meyer-Sniffen Co., New York, N. Y.
Exeter Brass Works, Exeter, N. H.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Federal-Huber Co., Chicago, Ill.
Fries & Co., Buffalo, N. Y.
Garrison-Heiland Corp., New York, N. Y.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
IXL Pump & Mfg. Co., The, Philadelphia, Pa.
Madden's Patent—James B. Clow & Sons, Chicago, Ill.
Mott, J. L., Iron Works, The, Trenton, N. J.
Newman Mfg. Co., The, Cincinnati, O.
Peck Bros. & Co., The, New Haven, Conn.
Perkes, Charles, Co., Philadelphia, Pa.
Rex—Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Richardson, Edro, Brass Co., Baltimore, Md.
Russell, John M., Mfg. Co., Naugatuck, Conn.
Speakman Co., Wilmington, Del.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Star—U. T. Hungerford Brass & Copper Co., New York, N. Y.
Steele & Johnson Mfg. Co., Waterbury, Conn.
Street & Kent Mfg. Co., Chicago, Ill.
Trenton Brass & Machine Co., The, Trenton, N. J.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
Waterbury Mfg. Co., Waterbury, Conn.
Wise, J. B., Inc., Watertown, N. Y.
Wolff Mfg. Corp., Chicago, Ill.

FITTINGS AND TRIMMINGS, CLOSET TANK.

American Foundry & Mfg. Co., St. Louis, Mo.
American Pin Co., The, Waterbury, Conn.
B. B.—Boston Brass Co., Waltham, Mass.
Baltimore Valve Corp., The, Baltimore, Md.
Douglas, John, Co., The, Cincinnati, O.
Elgin Brass Co., New York, N. Y.
Eljer Co., Ford City, Pa.
Emery, Wm. S., New York, N. Y.
Exeter Brass Works, Exeter, N. H.
Federal-Huber Co., Chicago, Ill.
Frost Mfg. Co., The, Kenosha, Wis.
Glackon—Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Grand Haven Brass Foundry Co., Grand Haven, Mich.
Indiana Brass Co., The, Frankfort, Ind.
I. X. L. Pump & Mfg. Co., The, Philadelphia, Pa.
Little, M. S., Mfg. Co., The, Hartford, Conn.
M-V B.—Morency-Van Buren Mfg. Co., Sturgis, Mich.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Miller, Chas. A., Co., Sturgis, Mich.
Powers, J. P., Mfg. Co., Ossining, N. Y.
Riverside Foundry & Galvanizing Co., Kalamazoo, Mich.
Trenjer Specialty Co., Trenton, N. J.
Trenton Brass & Machine Co., The, Trenton, N. J.
Union Brass & Metal Mfg. Co., Saint Paul, Minn.
VanArCo—Van Arnam Mfg. Co., Fort Wayne, Ind.
Waterbury Mfg. Co., Waterbury, Conn.
Wiseco—J. B. Wise, Inc., Watertown, N. Y.
Woodward-Wanger Co., Philadelphia, Pa.

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General Brass Company, Detroit, Mich.
Imperial Brass Mfg. Co., The, Chicago, Ill.
Lo-hi—Loane Engineering Co., Baltimore, Md.

FITTINGS AND VALVES, HARD RUBBER.

American Hard Rubber Co., New York, N. Y.
Ebonite—The Luzerne Rubber Co., Trenton, N. J.
Mechanical Rubber Co., The, New York, N. Y.
United States Rubber Co., New York, N. Y.

FITTINGS, HOSE, BRASS.
(See also "Couplings, Hose.")

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Allen, W. D., Mfg. Co., Chicago, Ill.
American Foundry & Mfg. Co., St. Louis, Mo.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Callahan, Cornelius, Co., The, Boston, Mass.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Farnan Brass Works Co., The, Cleveland, O.
Fries & Co., Buffalo, N. Y.
General Brass Company, Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Krenz, Oscar, Copper & Brass Works, Inc., The, San Francisco, Cal.
Landers, Frary & Clark, New Britain, Conn.
Medina Stamping & Machine Co., Inc., Medina, N. Y.
Mulconroy Co., Inc., Philadelphia, Pa. "Mulconroy."
Nob-Lok—C. A. Claflin Co., Boston, Mass.
Powell, Wm., Co., The, Cincinnati, O.
Powhatan Brass & Iron Works, Ranson, W. Va.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Schlangen Bros. Co., Chicago, Ill.
Schrader Universal—A. Schrader's Sons, Inc., Brooklyn, N. Y.
Seattle Brass Co., Seattle, Wash.
Sherman Mfg. Co., H. B., Battle Creek, Mich.
Standard Brass & Iron Works, Milwaukee, Wis.
Sure Hold—C. A. Claflin Co., Boston, Mass.

FITTINGS, OIL FIXTURE.

Essex Brass Corp., Detroit, Mich.
General Brass Company, Detroit, Mich.
White Star—Pittsburgh Gage & Supply Co., Pittsburgh, Pa.

FITTINGS, PIPE, ACID RESISTING.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Eastwood Wire Mfg. Co., Belleville, N. J.
Raymond Lead Co., Chicago, Ill.

FITTINGS, PIPE, BRASS.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
American Brass Novelty Co., Grand Haven, Mich.
American Manganese Bronze Co., Holmesburg, Philadelphia, Pa.
Atkinson Co., The, Rochester, N. Y.
Belfield Co., H., Philadelphia, Pa.
Bishop & Babcock Co., Cleveland, O
Boston Brass Co., Waltham, Mass. (fine thread).
Bridgeport Brass Co., Bridgeport, Conn.
Burlington Brass Works, Burlington, Wis.
Central Brass Mfg. Co., The, Cleveland, O.
C. C. Crane—Crane Co., Chicago, Ill.
Commonwealth Brass Corp., Detroit, Mich.
Detroit Sanitary Supply Co., Detroit, Mich. "Clean Sweep."
Exeter Brass Works, Exeter, N. H.
Fee & Mason Mfg. Co., New York, N. Y.
Fries & Co., Buffalo, N. Y.
Garratt & Co., W. T., San Francisco, Cal.
General Brass Company, Detroit, Mich.
Grinnell Company, Providence, R. I.
Hamlin & Emery Brass Co., The, Boston, Mass.
Hancock Mfg. Co., Charlotte, Mich.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Hoffmann, B., Mfg. Co., Milwaukee, Wis.
Illinois Malleable Iron Co., Chicago, Ill.
Jarecki Mfg. Co., Erie, Penna.
Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Johnson Service Co., Milwaukee, Wis.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lavigne Ball Solderless—Commonwealth Brass Corp., Detroit, Mich.
Little, M. S., Mfg. Co., Hartford, Conn.
Loyal Brass Co., Cleveland, O.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
National Brass Mfg. Co., Rochester, N. Y. (plumbers)
Nichol, Thos. J., & Co., Cincinnati, O.
Pittsburgh Valve & Fittings Co., Barberton, O.
Powell Co., The, Wm., Cincinnati, O.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Richardson Brass Co., Edro, Baltimore, Md.
Savill's, Thomas, Sons, Philadelphia, Pa.
Sherman Mfg. Co., H. B., Battle Creek, Mich.
Simmons Pipe Bending Works, Newark, N. J.
Standard Brass & Iron Works, Milwaukee, Wis.
Standard Brass Mfg. Co., Utica, N. Y.
Street & Kent Mfg. Co., Chicago, Ill.
Walworth Company, Boston, Mass.

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Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
B. B.—**Boston Brass Co., Waltham, Mass.**
Columbus Brass Co., Columbus, O.
Exeter Brass Works, Exeter, N. H.
Flannery, P. J., Co., New Britain, Conn.
General Brass Company, Detroit, Mich.
Hungerford, U. T., Brass & Copper Co., New York
Lunkenheimer Co., Cincinnati, O.
Krahn Mfg. Co., Milwaukee, Wis.
Newman Mfg. Co., The, Cincinnati, O.
Richardson, Edro, Brass Co., Baltimore, Md.
Sherman Mfg. Co., H. B., Battle Creek, Mich.

FITTINGS, PIPE, BRASS, TINNED.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Richardson, Edro, Brass Mfg. Co., Baltimore, Md.

FITTINGS, PIPE, BRONZE.

Eastwood—**Eastwood Wire Mfg. Co., Belleville, N. J**
Exeter Brass Works, Exeter, N. H.
Haydenville Co., The, Haydenville, Mass.
Lunkenheimer Co., The, Cincinnati, O.
Newman Mfg. Co., The, Cincinnati, O.
Pittsburgh Gage & Supply Co., Pittsburg, Pa.
Powell, Wm., Co., The, Cincinnati, O.
Richardson, Edro, Brass Co., Baltimore, Md.
Wilfert, John, Co., New York, N. Y.

FITTINGS, PIPE, CAST IRON.

Abendroth & Root Mfg. Co., Newburgh, N. Y.
Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American District Steam Co., North Tonawanda, N. Y.
American Cast Iron Pipe Co., Birmingham, Ala.
American Foundry & Mfg. Co., St. Louis, Mo.
American Spiral Pipe Works, Chicago, Ill.
Clark, H. W., Co., Mattoon, Ill.
Clarksville Foundry & Machine Works, Clarksville, Tenn.
Clow & Sons, James B., Chicago, Ill.
C.—**Crane Co.,** Chicago, Ill.
Cornell & Underhill, New York, N. Y.
Darling Valve & Mfg. Co., Williamsport, Pa. (gas and water).
Detroit Brass and Malleable Works, Detroit, Mich.
Direct Separator Co., Syracuse, N. Y.
Essex Foundry, Newark, N. J.
Fleck Bros. Co., Philadelphia, Pa.
Ford & Kendig Co., Philadelphia, Pa.
Garratt & Co., W. T., San Francisco, Cal.
Glenn Mfg. Co., St. Charles, Ill.
Grinnell Company, Providence, R. I.
Gulf States Pipe Corp., Anniston, Ala.
Healey, Peter, Brass Foundry Co., Evansville, Ind.
Hoffmann Mfg. Co., B., Milwaukee, Wis.
Illinois Malleable Iron Co., Chicago, Ill.
Iowa Valve Co., Oskaloosa, Ia.
K. Standard—Kuhns Bros., Dayton, O.
Kaltenthaler, H. J., Philadelphia.
Kellogg Co., The M. W., New York, N. Y.
Kretschmer Mfg. Co., Dubuque, Iowa.
Limbert & Co., Geo. B., Chicago, Ill.
Lutz Co., Inc., Philadelphia, Pa.
McEwen Mfg. Co., Tulsa, Okla.
Mitchell & Co., Inc., W. K., Philadelphia, Pa.
National Foundry Co. of N. Y., Inc., Brooklyn, N. Y.
Peco—Pittsburgh Engineering Co., Jeanette, Pa.
Peerless Foundry Co., Pittsburgh, Pa.
Pittsburgh Valve & Fittings Co., Barberton, O.
Ravena Iron Co., Ravena, N. Y.
Rome Sanitary Mfg. Co., Rome, N. Y.
Simmons Co., John, New York, N. Y.
Standard Cast Iron Pipe & Foundry Co., Bristol, Pa.
Stockham Pipe & Fittings Co., Birmingham, Ala.
"U"—**Chas. Millar & Son Co., Utica, N. Y.**
Walworth Company, Boston, Mass.
Washington Pipe & Foundry Co., Tacoma, Wash.

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Commonwealth Brass Corp., Detroit, Mich.
Richardson Brass Co., Edro, Baltimore, Md.

FITTINGS, PIPE, COPPER.

Arthur Harris & Co., Chicago, Ill.

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Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
Blake Specialty Co., Rock Island, Ill.
Boosey, Norman, Mfg. Co., Detroit, Mich.
Chicago Pipe Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Detroit Brass and Malleable Works, Detroit, Mich.
Essex Foundry Co., Newark, N. J.
Fleck Bros. Co., Philadelphia, Pa.
Glenn Mfg. Co., St. Charles, Ill.
Grabler Mfg. Co., Cleveland, O.
Gulf States Pipe Corp., Anniston, Ala.
Hajoca Corporation, Philadelphia, Pa.
Illinois Malleable Iron Co., Chicago, Ill. "Imico."
Kuhns Bros., Dayton, O.
Lukomski Brothers Co., Detroit, Mich.
National Foundry Co. of N. Y., Brooklyn, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, O.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Stringer Bros. Co., Chicago, Ill. (Trade names—Fiat, Stringer).
Testite—The Groeniger Mfg. Co., Columbus, O.
Union Machine Works, Oakland, Cal
Walworth Alabama Co., Attalla, Ala.
Walworth Company, Boston, Mass.
Weiskittel, A., & Son Co., Baltimore, Md.

FITTINGS, PIPE, FLANGED.

Abendroth & Root Mfg. Co., Newburgh, N. Y.
Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
American District Steam Co., No. Tonawanda, N. Y.
American Spiral Pipe Works, Chicago, Ill.
Best Co., Pittsburgh, Pa.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Donaldson Iron Co., Emaus, Pa.
Eastwood Wire Mfg. Co., Belleville, N. J.
Edward Valve & Mfg. Co., East Chicago, Ind.
Essex Foundry, Newark, N. J.
Flagg, Stanley G., & Co., Philadelphia, Pa.
Ford & Kendig Co., Philadelphia, Pa.
Fox, John, & Co., New York, N. Y.
General Pipe & Foundry Co., Atlanta, Ga.
Georgia Iron Works, Augusta, Ga.
Glamorgan Pipe & Foundry Co., Lynchburg, Va.
Glenn Mfg. Co., St. Charles, Ill.
Grinnell Company, Providence, R. I.
Hydraulic Press Mfg. Co., The, Columbus, O. (high pressure). "H.P.M.," "Forgsteel."
Hoffmann, B., Mfg. Co., Milwaukee, Wis.
Illinois Malleable Iron Co., Chicago, Ill. "Imico."
Jefferson Union Co., Lexington, Mass. (union).
Kaltenthaler, H. J., Philadelphia, Pa.
Kellogg, M. W., Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kuhns Bros., Dayton, O.
Limbert, Geo. B., & Co., Chicago, Ill.
Lynchburg Foundry Co., Lynchburg, Va.
Malleable Iron Fittings Co., Branford, Conn.
Materne, John P., Mfg. Co., St. Louis, Mo.
Modern Iron Works, Quincy, Ill.
National Valve & Mfg. Co., Pittsburgh, Pa.
Newbury, Jay H., & Son, Goshen, N. Y.

Newbury Mfg. Co., Monroe, N. Y.
Peerless Foundry Co., Pittsburg, Pa.
Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
Pittsburgh Piping & Equipment Co., Pittsburgh, Pa.
Pittsburgh Valve & Fittings Co., Barberton, O.
Powell, Wm., Co., The, Cincinnati, O.
Richardson, Edro, Brass Co., Baltimore, Md. (Brass.)
Shaw-Kendall Engineering Co., Toledo, O.
Shaw, Benjamin F., Co., Wilmington, Del.
Stockham Pipe & Fittings Co., Birmingham, Ala.
U. S. Cast Iron Pipe & Foundry Co., Burlington, N. J.
Victory Manufacturing Co., Niles, Calif.
Walworth Alabama Co., Attalla, Ala (cast iron).
Walworth Company, Boston, Mass.
Youngstown Sheet & Tube Co., Youngstown, O.

FITTINGS, PIPE, GALVANIZED IRON.

Abendroth & Root Mfg. Co., Newburgh, N. Y.
Illinois Malleable Iron Co., Chicago, Ill.
Kaltenthaler, H. J., Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, O.
Walworth Company, Boston, Mass.

FITTINGS, PIPE, HYDRAULIC.

Anker Engineering Co., Philadelphia, Pa.
Burroughs, Chas., The, Co., Newark, N. J.
Crane Co., Chicago, Ill.
Dunning & Boschert Press Co., Inc., Syracuse, N. Y.
Elmes, Chas. F., Engineering Works, Chicago, Ill.
Fries & Co., Buffalo, N. Y.
Hydraulic Press Mfg. Co., The, Columbus, O. "H. P. M.," "Forgsteel."
Kaltenthaler, H. J., Philadelphia, Pa.
Limbert & Co., Geo. B., Chicago, Ill.
Metalwood Mfg. Co., Detroit, Mich.
Reading Steel Casting Co., Inc., Bridgeport, Conn.
Richardson, Edro, Brass Co., Baltimore, Mo. (Brass.)
Southwark Foundry & Machine Co., Philadelphia, Pa.
Tight Joint—Martin-Morse Corp., New York, N. Y.
Toledo—Franklin Williams, Inc., Newark, N. J.
Vogt—Henry Vogt Machine Co., Louisville, Ky. (steel).
Watson-Stillman Co., The, New York, N. Y.
Walworth Company, Boston, Mass.
Wood, William H., Media, Pa.

FITTINGS, PIPE, LONG SWEEP.

Crane Co., Chicago, Ill.
Essex Foundry, Newark, N. J.
Glenn Mfg. Co., St. Charles, Ill.
Grinnell Co., Inc., Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Kaltenthaler, H. J., Philadelphia, Pa.
Kuhns Bros., Dayton, O.
Limbert, Geo. B., & Co., Chicago, Ill.
Pittsburgh Valve & Fittings Co., Barberton, O.
Simmons, John, Co., New York, N. Y.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Walworth Company, Boston, Mass.

FITTINGS, PIPE, MALLEABLE IRON.

Belfield, H., Co., Philadelphia, Pa.
C.—Crane Co., Chicago, Ill.
Cornell & Underhill, New York, N. Y.
Dayton—Dayton Pipe Coupling Co., Dayton, O.
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin Mfg. Co., Thos., Philadelphia, Pa.
Dresser—S. R. Dresser Mfg. Co., Bradford, Pa.
Flagg & Co., Stanley G., Philadelphia, Pa.
Fleck Bros. Co., Philadelphia, Pa.
Grabler, Square Gee—Grabler Mfg. Co., Cleveland, O.
Illinois Malleable Iron Co., Chicago, Ill.
Jarecki Mfg. Co., Erie, Pa.
Jefferson Union Co., Lexington, Mass. (union).
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Malleable Iron Fittings Co., Branford, Conn.
Chas. Millar & Sons Co., Utica, N. Y. "U."
Pittsburgh Valve & Fittings Co., Barberton, O.
Tight-Joint—Martin-Morse Corp., New York, N. Y.
Simmons, John, Co., New York, N. Y.
Walworth Company, Boston, Mass.

FITTINGS, PIPE, MONEL

Sholes, Incorporated, New York, N. Y.
Williams & Co., Pittsburgh, Pa.

FITTINGS, PIPE, RECESSED.

Essex Foundry, Newark, N. J.
Illinois Malleable Iron Co., Chicago, Ill.
Walworth Company, Boston, Mass.
Zurn, J. A., Mfg. Co., Erie, Pa.

FITTINGS, PIPE, SEMI-STEEL.

C.—Crane Co., Chicago, Ill.
Kaltenthaler, H. J., Philadelphia, Pa.
Limbert & Co., Geo. B., Chicago, Ill.
Walworth Company, Boston, Mass. "Steeliron."

FITTINGS, PIPE, STEEL.

Bonney Forge & Tool Works, Allentown, Pa.
Central Forging Company, The, Catawissa, Pa. "Catawissa."
Crane Co., Chicago, Ill.
Edward—Edward Valve & Mfg. Co., East Chicago, Ind.
Elmes, Chas. F., Engineering Works, Chicago, Ill.
Hydraulic Press Mfg. Co., The, Columbus, O. (drop forged and cast). "Forgsteel."
Kaltenthaler, H. J., Philadelphia, Pa.
Kerotest—Pittsburgh Reinforced Brazing & Machine Co., Pittsburgh, Pa.
Limbert & Co., Geo. B., Chicago, Ill.
Malleable Iron Fittings Co., Branford, Conn.
Metalwood Mfg. Co., Detroit, Mich.
Mitchell & Co., Inc., W. K., Philadelphia, Pa.
Nevado—Franklin Williams, Newark, N. J.
Reading Steel Casting Co., Inc., Bridgeport, Conn.
Shaw, Benjamin F., Co., Wilmington, Del.
South Chester Tube Co., Chester, Pa.
Tight-Joint—Martin-Morse Corp., New York, N. Y.
Vogt—Henry Vogt Machine Co., Louisville, Ky. (See advertisement page 137.)
Walworth Company, Boston, Mass. "Sigma Steel."
Watson-Stillman Co., The, New York, N. Y.

FITTINGS, PIPE, WOOD LINED.

Boyts, Porter Co., Connellsville, Pa.

FITTINGS, RAILING, BRASS AND BRONZE.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Brey & Krause Mfg. Co., Allentown, Pa.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Fries & Co., Buffalo, N. Y.
Newman Mfg. Co., Cincinnati, O.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Richardson, Edro, Brass Co., Baltimore, Md.
Walworth Company, Boston, Mass.
Wilcox, Crittenden & Co., Middletown, Conn.
Zurn, J. A., Mfg. Co., Erie, Pa.

FITTINGS, RAILING, IRON.

Crane Co., Chicago, Ill.
Detroit Malleable & Brass Works, Detroit, Mich.
Eastwood Wire Mfg. Co., Belleville, N. J. "Eastwood."
Flagg & Co., Stanley G., Philadelphia, Pa.
Ford & Kendig Co., Philadelphia, Pa.
Glenn Mfg. Co., St. Charles, Ill.
Guilderland Foundry Co., Guilderland, N. Y.
Illinois Malleable Iron Co., Chicago, Ill.
Malleable Iron Fittings Co., Branford, Conn.
Newbury, Jay H., & Son, Goshen, N. Y.
Newman Mfg. Co., Cincinnati, O.
Pittsburgh Valve & Fittings Co., Barberton, O.
Walworth Company, Boston, Mass.
Wilcox, Crittenden & Co., Middletown, Conn.
Zurn, J. A., Mfg. Co., Erie, Pa.

FITTINGS, RANGE BOILER, BRASS.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Atkinson Co., Rochester, N. Y.
Burlington Brass Works, Burlington, Wis.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Dick Bros., Inc., Reading, Pa.
Exeter Brass Works, Exeter, N. H.
Federal-Huber Co., Chicago, Ill.
Fee & Mason Mfg. Co., New York, N. Y.
Flagg & Co., Stanley G., Philadelphia, Pa.
Flannery Co., P. J., New Britain, Conn.
Fries & Co., Buffalo, N. Y.
Grabler Mfg. Co., Cleveland, O.
Hajoca Corporation, Philadelphia, Pa.
Hamilton, John, Brass Works, Bridgeport, Conn.
Hampden Brass Products, Springfield, Mass.
Haydenville Co., Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Hoffmann, B., Mfg. Co., Milwaukee, Wis.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Illinois Malleable Iron Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
Johnson, J. D., Co., Inc., Philadelphia, Pa.
Kitson Co., Philadelphia, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Okay—E. Stebbins Mfg. Co., Springfield, Mass.
Peck Bros. & Co., New Haven, Conn.
Perkins, H. K., Co., Taunton, Mass.
Pittsburgh Valve & Fittings Co., Barberton, O.
Powhatan Brass & Iron Works, Ranson, W. Va.
Riverside Boiler Works, Inc., Cambridge, Mass.
Romaco—Robertshaw Thermostat Co., Youngwood, Pa.
Rundle Mfg. Co., Milwaukee, Wis.
Savill's, Thos., Sons, Philadelphia, Pa.
Slack-Horner Brass Mfg. Co., The, Denver, Col. "Lead Seal."
Trenton Brass & Machine Co., Trenton, N. J.

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Walworth Company, Boston, Mass.
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FITTINGS, RANGE BOILER, MALLEABLE.

Bonney Forge & Tool Works, Allentown, Pa.
Crane Co., Chicago, Ill.
Illinois Malleable Iron Co., Chicago, Ill. "Imico."
Jefferson Union Co., Lexington, Mass.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Malleable Iron Fittings Co., Branford, Conn.
Pittsburgh Engineering Co., Jeannette, Pa.
Riverside Boiler Works, Inc., Cambridge, Mass.
Square Gee—Grabler Mfg. Co., Cleveland, O.
Universal—M. A. Connor, Lockport, N. Y.

FITTINGS, REVENT

Alabama Pipe Co., Anniston, Ala.
Walworth Company, Boston, Mass.
Zurn, J. A., Mfg. Co., Erie, Pa.

FITTINGS, SINK, FLANGED.

S. & H.—H. Shields, Fort Dodge, Iowa.

FITTINGS, SOIL PIPE, BASE.

Alabama Pipe Co., Anniston, Ala.
Atchison Specialty Mfg. Co., Atchison, Kans. "Asco."
Boosey—Greenwood Mfg. Co., Detroit, Mich.
Central Foundry Co., New York, N. Y.
Essex Foundry, Newark, N. J.
Gulf States Pipe Corp., Anniston, Ala.
Hammond Iron Corp., Birmingham, Ala.
Kaltenthaler, H. J., Philadelphia, Pa.
Lukomski Bros. Co., Detroit, Mich.
Medina Iron & Brass Co., Medina, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, O.
Reading Foundry & Supply Co., Reading, Pa.
Red Top—Q-S. Sanitary Mfg. Co., Waterloo, Iowa.
Stringer Bros. Co., Chicago, Ill.
Walworth Company, Boston, Mass.

FITTINGS, SPRINKLER SYSTEM.

American Foundry & Mfg. Co., St. Louis, Mo.
Grinnell Company, Providence, R. I.
Kaltenthaler, H. J., Philadelphia, Pa.
Limbert & Co., Geo. B., Chicago, Ill.
Rockwood Sprinkler Co. of Massachusetts, Worcester, Mass.

FITTINGS, STEEL, DROP FORGED

Vogt, Henry, Machine Co., Inc., Louisville, Ky.

FITTINGS, TUBING.

General Brass Company, Detroit, Mich.
Parker Appliance Co., The, Cleveland, Ohio.

FITTINGS, UNIVERSAL.

Nelson Co., The, Boston, Mass. "Donnelly."

FITTINGS, URN.

General Brass Company, Detroit, Mich.

FITTINGS, VENT.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
American Sanitary Mfg. Co., Abingdon, Ill.
Boston Brass Co., Waltham, Mass.
Clow, James B., & Sons, Chicago, Ill.
Economy—Blake Specialty Co., Rock Island, Ill.
Essex Foundry, Newark, N. J.
Fiat—Stringer Bros. Co., Chicago, Ill.
Fries & Co., Buffalo, N. Y.
Frost Mfg. Co., Kenosha, Wis.
Gopher—Union Brass & Metal Mfg. Co., St. Paul, Minn.
Jumbo Heater & Mfg. Co., Cleveland, O.
Manhoff—Sanitary Company of America, Linfield, Pa.
Powhatan Brass & Iron Works, Ranson, W. Va.
Prier Brass Mfg. Co., Kansas City, Mo.
Red Top—Q-S. Sanitary Mfg. Co., Waterloo, Iowa.
Swett, A. L., Iron Work, Medina, N. Y.
Union Machine Works, Oakland, Cal.
United Brass Mfg. Co., Cleveland, O.
Woodward-Wanger Co., Philadelphia, Pa.

FITTINGS, WELL CASING.

Newbury, Jay H., & Son, Goshen, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, O.

FITTINGS, WIRE ROPE.

American Crosby—American Hoist & Derrick Co., St. Paul, Minn.
American Iron & Steel Mfg. Co., Lebanon, Pa.
American Steel & Wire Co., Chicago, Ill.
American Cable Co., New York, N. Y.
Bull Dog—Lamson & Sessions Co., Cleveland, O.
Chicago Hardware & Fixture Co., Chicago, Ill.
Clyde Iron Works, Duluth, Minn.
Columbus Bolt Co., Columbus, O.
Double Grip—Lamson & Sessions Co., Cleveland, O.
Fischer & Hayes Rope & Steel Co., Chicago, Ill.
Hallett Iron Works, The, Harvey, Ill.
Lanz, M., Bolt Co., Pittsburgh, Pa.
Mockbee—C. M. Mockbee, Cincinnati, O.
Monarch—Macwhyte Company, Kenosha, Wis.
National Malleable Casting Co., Cleveland, O.
Newhall Chain Forge & Iron Co., New York, N. Y.
Waterbury Co., New York, N. Y.
Wilcox, Crittenden & Co., Inc., Middletown, Conn.
Williamsport Wire Rope Co., Williamsport, Pa
Wood Supply Co., The J. R., Cincinnati, O.

FIXTURES, BURRING.

Chapin-Skelton Corp., Syracuse, N. Y.

FIXTURES, CLAMP, WOOD BAR.

Hargrave—The Cincinnati Tool Co., Cincinnati, O.
Little Giant—Adjustable Clamp Co., Chicago, Ill.
Superior Clamp Co., Chicago, Ill.

FIXTURES, INDEXING, FOR MACHINE TOOLS.

Brandt & Carpenter, New Britain, Conn.

FLANGES, AMMONIA.

(See also "Fittings, Ammonia.")

C.—Crane Co., Chicago, Ill.
Vogt, Henry, Machine Co., Louisville, Ky. (drop forged steel.)
Whitlock Coil Pipe Co., The, Hartford, Conn.
Williams, J. H., & Co., Buffalo, N. Y.

FLANGES, BARREL, PRESSED STEEL.

Bettcher Stamping & Mfg. Co., The, Cleveland, O.

FLANGES, BIBB AND COCK.

American Brass Mfg. Co., The, Cleveland, O.
Ampinco—American Pin Co., Waterbury, Conn.
Burlington Brass Works, Burlington, Wis.
Haydenville Co., The, Haydenville, Mass.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
McRae & Roberts Co., The, Detroit, Mich.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Mt. Carmel Manufacturing Co., The, Mount Carmel, Conn.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Wise, J. B., Watertown, N. Y.
Woodward-Wanger Co., Philadelphia, Pa.

FLANGES, BOILER.

American Spiral Pipe Works, Chicago, Ill.
Bros, Wm., Boiler & Mfg. Co., Minneapolis, Minn.
Munroe, R., & Sons, Mfg. Corp., Pittsburgh, Pa.
O'Leary, Arthur J., & Sons Co., Chicago, Ill.
Scully Steel & Iron Co., Chicago, Ill.

FLANGES, CLOSET, SHORT HORN.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Peck Bros. & Co., New Haven, Conn.
Testite—The Groeniger Mfg. Co., Columbus, O.

FLANGES, CLOSET, FLOOR.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Albrass Co., Inc., Coxsackie, N. Y. (Brass).
American Foundry & Mfg. Co., St. Louis, Mo.
American Sanitary Mfg. Co., Abingdon, Ill.
Ampinco—American Pin Co., Waterbury, Conn.
Ayling & Reichert Co., Toledo, O.
Bignall Co., The, Medina, N. Y.
Boosey—Greenwood Mfg. Co., Detroit, Mich.
Blake Specialty Co., Rock Island, Ill.
Bridgeport Brass Co., Bridgeport, Conn.
C. H. Moore—Karwill Specialty Co., New York, N. Y.
Central Foundry Co., New York, N. Y.
Clarksville Fdy. & Machine Works, Clarksville, Tenn.
Clipper Tool Co., Buffalo, N. Y.
Columbus Brass Co., Columbus O. (Trade names—Columbus, Durham.)
C. C.—Crane Co., Chicago, Ill.
Dearborn Brass Co., Cedar Rapids, Ia.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
Durham—Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Durham—Prier Brass Mfg. Co., Kansas City, Mo.
Durham—Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Durst Mfg. Co., The, New York, N. Y.
Edwardsville Brass Co., Edwardsville, Ill.
Eljer Co., Ford City, Pa. (Trade names—Eljer, Sanitary Universal.)
Enterprise Brass Works, Muskegon, Mich.
Essex Foundry, Newark, N. J.
Farnan Brass Works, Co., Cleveland, O.
Fee & Mason Mfg. Co., New York, N. Y.
Frank Bros., New York, N. Y.
Fries & Co., Buffalo, N. Y.

Frost Mfg. Co., The, Kenosha, Wis.
Glenn Mfg. Co., St. Charles, Ill.
Gulf States Pipe Corp., Anniston, Ala.
Hogan Mfg. Co., The, Hartford, Conn.
Ideal—Sanitary Company of America, Linfield, Pa.
Illinois Malleable Iron Co., Chicago, Ill. "Imico."
I. & M.—The Ireland & Matthews Mfg. Co., Detroit, Mich.
I. X. L. Pump & Mfg. Co., The, Philadelphia, Pa.
Jones Hollow Ware Co., Baltimore, Md.
Kaltenthaler, H. J., Philadelphia, Pa.
Kitson Co., Philadelphia, Pa.
Loyal Brass Co., Cleveland, O.
Martin—Martin, Ft. Wayne, Ind.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Modern Iron Works, Quincy, Ill.
Mott, J. L., Iron Works, The, Trenton, N. J.
Mt. Carmel Mfg. Co., The, Mount Carmel, Conn.
Nunn Brass Works, Rochester, N. Y.
Pioneer Brass Works, Indianapolis, Ind.
Powhatan Brass & Iron Works, Ranson, W. Va.
Pres-O-Flex—Cosgrove & Cosgrove Co., Rutherford, N. J.
Prier Brass Mfg. Co., Kansas City, Mo.
Reading Brass Works, Reading, Pa.
Rice, Edward J., Mfg. Co., Rochester, N. Y.
Republic—Stringer Bros. Co., Chicago, Ill.
Richmond Foundry & Mfg. Co. The, Inc., Richmond, Va.
Robinson Mfg. Co., Cleveland, O.
Russell, John M., Mfg. Co., Inc., The, Naugatuck, Conn.
Sanitary Company of America, Linfield, Pa.
Savill's, Thomas, Sons, Philadelphia, Pa.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Standard Brass Mfg. Co., Utica, N. Y.
Stockham Pipe & Fittings Co., Birmingham, Ala.
Suretite—Trenjer Specialty Co., Trenton, N. J.
3-S—The Sanitary Specialty Co., Newark, N. J.
Testite—Groeniger Mfg. Co., Columbus, O.
Trenton Brass & Machine Co., The, Trenton, N. J.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
Wade Iron Sanitary Mfg. Co., Chicago, Ill.
Waterbury Mfg. Co., Waterbury, Conn.
Worcester Pressed Steel Co., Worcester, Mass.
Woodward-Wanger Co., Philadelphia, Pa.

FLANGES, PIPE, BLIND.

American Foundry & Mfg. Co., St. Louis, Mo.
C.—Crane Co., Chicago, Ill.
Hershey Machine & Foundry Co., Manheim, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Kaltenthaler, H. J., Philadelphia, Pa.
Limbert & Co., Geo. B., Chicago, Ill.
Newbury, Jay H., & Son, Goshen, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, O.
Walworth Company, Boston, Mass.

FLANGES, PIPE, BRASS.

American Brass Mfg. Co., The, Cleveland, O.
American Brass Novelty Co., Grand Haven, Mich
American Foundry & Mfg. Co., St. Louis, Mo.
Ampinco—American Pin Co., Waterbury, Conn.
Belfield Co., H., Philadelphia, Pa.
Boekel & Co., Wm., Philadelphia, Pa.
Bridgeport Brass Co., Bridgeport, Conn.
Burlington Brass Works, Burlington, Wis.
Clean Sweep—Detroit Sanitary Supply Co., Detroit, Mich.
Crane—Crane Co., Chicago, Ill.
Edna Brass Mfg. Co., The, Cincinnati, O.
Exeter Brass Works, Exeter, N. H.
Fries & Co., Buffalo, N. Y.
Frost Mfg. Co., Kenosha, Wis.
General Brass Co., Detroit, Mich.
Grinnell Company, Providence, R. I.
Hamlin & Emery Brass Co., The, Boston, Mass.
Jenkins Bros.—Jenkins Bros., New York, N. Y.
Kaltenthaler, H. J., Philadelphia, Pa.
Krenz, Oscar, Copper & Brass Works, Inc., The, San Francisco, Cal.
Limbert & Co., Geo. B., Chicago, Ill.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Midland Mfg. Co., Fort Worth, Tex. "Midland."
Mitchell & Co., Inc., W. K., Philadelphia, Pa.
National Brass Mfg. Co., Rochester, N. Y.
Newman Mfg. Co., The, Cincinnati, O.
Perkes Co., Charles, Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, O.
Powell, Wm., Co., The, Cincinnati, O.
Powhatan Brass & Iron Works, Ranson, W. Va.
Richardson, Edro, Brass Co., Baltimore, Md.
Roberts Brass Mfg. Co., Detroit, Mich.
Salem Brass & Iron Mfg. Co., Bridgeton, N. J.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Trenton Brass & Machine Co., The, Trenton, N. J.
United Brass Mfg. Co., Cleveland, O. "United."
Walworth Company, Boston, Mass.
Waterbury Mfg. Co., Waterbury, Conn. (sheet brass.)
Zurn, J. A., Mfg. Co., Erie, Pa.

FLANGES, PIPE, CAST IRON.

Abendroth & Root Mfg. Co., Newburgh, N. Y.
American District Steam Co., North Tonawanda, N. Y.
American Foundry & Mfg. Co., St. Louis, Mo.
Bard Patent—The Bard Union Co., Inc., Norwich, Conn.
Barnard Mfg. Co., Spokane, Wash.
Belfield Co., H., Philadelphia, Pa.
Clow, James B., & Sons, Chicago, Ill.
C.—Crane Co., Chicago, Ill.
Devlin, Thomas, Mfg. Co., Philadelphia, Pa.
Direct Separator Co., The, Syracuse, N. Y.
Edna Brass Mfg. Co., The, Cincinnati, O.
Fisher Governor Co., The, Marshalltown, Ia.
Ford & Kendig Co., Philadelphia, Pa.
Glenn Mfg. Co., St. Charles, Ill.
Grinnell Company, Providence, R. I.
Guilderland Foundry Co., Guilderland, N. Y.
Hoffmann, B., Mfg. Co., Milwaukee, Wis.
Illinois Malleable Iron Co., Chicago, Ill.
Jenkins Bros.—Jenkins Bros., New York, N. Y.
Kaltenthaler, H. J., Philadelphia, Pa.
Kellogg, M. W., Co., The, New York, N. Y.
Limbert & Co., Geo. B., Chicago, Ill.
Lutz Company, Inc., Philadelphia, Pa.
Mecklenburg Iron Works, Charlotte, N. C.
Mitchell & Co., Inc., W. K., Philadelphia, Pa.
Modern Iron Works, Quincy, Ill.
Newbury, Jay H., & Son, Goshen, N. Y. (Extra heavy).
Newbury Mfg. Co., Monroe, N. Y.
Ohio Injector Co., The, Wadsworth, O.
Oil Well Supply Co., Pittsburg, Pa.
Peerless Foundry Co., Pittsburgh, Pa.
Pittsburgh Valve & Fittings Co., Barberton, O.
Powell Co., The Wm., Cincinnati, O.
Powhatan Brass & Iron Works, Ranson, W. Va.
Rensselaer Valve Co., Troy, N. Y.
Van Stone—Best Co., Pittsburgh, Pa.
Walworth Company, Boston, Mass.
Zurn, J. A., Mfg. Co., Erie, Pa.

FLANGES, PIPE, COMPANION.

American District Steam Co., North Tonawanda, N. Y.
American Foundry & Mfg. Co., St. Louis, Mo.
Flagg, Stanley G., & Co., Philadelphia, Pa.
Glasgow Iron Co., Pottstown, Pa.
Hershey Machine & Foundry Co., The, Manheim, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Jenkins Bros.—Jenkins Bros., New York, N. Y.
Kaltenthaler, H. J., Philadelphia, Pa.
Limbert & Co., Geo. B., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, O.
Metalwood—Metalwood Mfg. Co., Detroit, Mich.
Newbury, Jay H., & Son, Goshen, N. Y.
Newbury Mfg. Co., The, Monroe, N. Y.
O'Leary, Arthur J., & Son, Co., Chicago, Ill.
Peco—Pittsburgh Engineering Co., Jeannette, Pa.
Pittsburgh Valve & Fittings Co., Barberton, O.
Powell Co., The Wm., Cincinnati, O. (brass or iron).
Rensselaer Valve Co., Troy, N. Y.
Richardson, Edro, Brass Co., Baltimore, Md.
Walworth Company, Boston, Mass.

FLANGES, PIPE, CURVED.

Kaltenthaler, H. J., Philadelphia, Pa.
Limbert & Co., Geo. B., Chicago, Ill.
Newbury, Jay H., & Son, Goshen, N. Y.
Walworth Company, Boston, Mass.

FLANGES, PIPE, FLOOR.

Detroit Brass & Malleable Works, Detroit, Mich.
Flagg & Co., Stanley G., Philadelphia, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Modern Iron Works, Quincy, Ill.
Modern Mfg. Co., The, Cleveland, O.
Newbury, Jay H., & Son, Goshen, N. Y.
Newbury Mfg. Co., The, Monroe, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, O.
Robinson Mfg. Co., The, Cleveland, O.
Walworth Company, Boston, Mass.
Zurn, J. A., Mfg. Co., Erie, Pa.

FLANGES, PIPE, MALLEABLE IRON.

Devlin, Thos., Mfg. Co., Philadelphia, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Walworth Company, Boston, Mass.

FLANGES, PIPE, REDUCING.

American District Steam Co., North Tonawanda, N. Y.
Hershey Machine & Foundry Co., Manheim, Pa.
Kaltenthaler, H. J., Philadelphia, Pa.
Limbert & Co., Geo. B., Chicago, Ill.
Newbury, Jay H., & Son, Goshen, N. Y.

FLANGES, PIPE, SEMI-STEEL.

C.—Crane Co., Chicago, Ill.
Kaltenthaler, H. J., Philadelphia, Pa.
Limbert & Co., Geo. B., Chicago, Ill.

FLANGES, PIPE, SHRINK.

Limbert & Co., Geo. B., Chicago, Ill.

FLANGES, PIPE, STEEL.

American Spiral Pipe Works, Chicago, Ill.
C.—Crane Co., Chicago, Ill.
Glasgow—Glasgow Iron Co., Pottstown, Pa.
Jenkins Bros.—Jenkins Bros., New York, N. Y.
Kaltenthaler, H. J., Philadelphia, Pa.
Kellogg, M. W., Co., The, New York, N. Y.
Limbert & Co., Geo. B., Chicago, Ill.
Mitchell & Co., Inc., W. K., Philadelphia, Pa.
Reading—Reading Steel Casting Co., Inc., Bridgeport, Conn.
Simmons—John Simmons Co., New York, N. Y. (rolled steel).
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Company, Boston, Mass.

FLANGES, PIPE, UNION.

(See "Unions, Flange.")

FLANGES, PIPE, WROUGHT IRON.

Devlin Mfg. Co., Thos., Philadelphia, Pa.
Glasgow—Glasgow Iron Works, Pottstown, Pa.
Kellogg Co., The M. W., New York, N. Y.
Limbert & Co., Geo. B., Chicago, Ill.
National Brass Mfg. Co., Rochester, N. Y.
Pittsburgh Valve Foundry & Construction Co., Pittsburgh, Pa.
Powell Co., The Wm., Cincinnati, O.

FLANGES OR FLASHINGS, ROOF.

Any Angle Fife—Canton Supply Co., Canton, O
Berloy—Berger Mfg. Co., Canton, O.
Bullard Specialty Co., Tiffin, O.
Dixie Metal Products Co., Birmingham, Ala.
Eagle—Eagle-Picher Lead Co., Cincinnati, O.
Gulf States Pipe Corp., Anniston, Ala.
Holt—The Barrett Co., New York.
Hoyt Metal Co., St. Louis, Mo.
Hub Patent—Bourneuf Corporation, Louis, Lynn, Mass.
Josam Mfg. Co., Michigan City, Ind.
J. R. S. Specialties Mfg. Co., Inc., The, New York, N. Y.
McCaffrey Plumbing Supply Co., Chicago, Ill. "Kantleak and Perfection."
Madewell Mfg. Co., Oakland, Cal. "Madewell."
Midland Metal Mg. Co., Kansas City, Mo.
Moore, F. J., Minneapolis, Minn.
Overton—Butler Mfg. Co., Minneapolis, Minn.
Raymond Lead Works, Chicago, Ill.
Retlaw—Harker Mfg. Co., Cincinnati, O.
Simplex Mfg. Co., Chicago, Ill.
S. M. & S.—Prier Brass Mfg. Co., Kansas City, Mo.
United Lead Co., New York, N. Y.
Witch—Carpenter & Paterson, Inc., Boston, Mass.
Y. T.—Bastian-Morley Co., La Porte, Ind.

FLANGES, SCREW.

Reading Brass Works, Reading, Pa.
Zurn, J. A., Mfg. Co., Erie, Pa.

FLANGES, SOLDERING.

Reading Brass Works, Reading, Pa.

FLANGES, STEEL RIVETING.

Glasgow Iron Co., Pottstown, Pa.

FLANGES, TANK.

Baumgarten & Wyler, El Paso, Tex.
Michigan Lubricator Co., Detroit, Mich.
Midland Mfg. Co., Fort Worth, Tex. "Midland."
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.

FLANGES, WALL, HOSE.

Hays Mfg. Co., Erie, Pa.

FLANGES, WELDING.

Bonney Forge & Tool Works, Allentown, Pa.

FLASKS, MOULDING.

Wood's Sons Co., T. B., Chambersburg, Pa.

FLINTS, FOR MINERS' LAMPS.

New Process Metals Corp., Newark, N. Y.

FLOATS, ALUMINUM.

Harris, Arthur & Co., Chicago, Ill.
Weber Bros. Metal Works, Chicago, Ill.

HARRIS FLOATS

Copper—Brass—Steel—Aluminum

All Shapes—All Pressures—All Uses

Copper Ball Floats up to 12" diameter always in stock.

ARTHUR HARRIS & CO.

Engineers—Coppersmiths—Brass Founders—Brass Finishers

210-218 N. Curtis St., Chicago, Ill.

FLOATS, CARBURETER.

Harris, Arthur & Co., Chicago, Ill.
Naugatuck Mfg. Co., Naugatuck, Conn.
Weber Bros. Metal Works, Chicago, Ill.

FLOATS, CLOSET TANK, CHINA AND PORCELAIN ENAMELED.

Camden Pottery Co., Camden, N. J.
Maddock, John, & Sons, Trenton, N. J.
Universal Sanitary Mfg. Co., New Castle, Pa.

FLOATS, CLOSET TANK, COPPER.

American Pin Co., Waterbury, Conn. "Ampinco," "Perfect," "Wonder Brand."
Ayling & Reichert Co., The, Toledo, O. "No Sol."
Boston Brass Co., Waltham, Mass. (Trade names—B. B., Dirigo.)
Boekel, Wm., & Co., Philadelphia, Pa.
Chicago Float Works, Chicago, Ill.
Consolidated Mfg. Co., Dayton, O.
Coyne & Delany Co., Brooklyn, N. Y.
Detroit Metal Spinning Co., Detroit, Mich.
Everitt Co., Boston, Mass.
Federal-Huber Co., Chicago, Ill.
Frank Bros., New York, N. Y.
Frost Mfg. Co., The, Kenosha, Wis.
Gerstein & Cooper Co., South Boston, Mass.
Harris, Arthur, & Co., Chicago, Ill.
Haydenville Co., Haydenville, Mass.
Hercules Float Works, Springfield, Mass.
Hogan Mfg. Co., The, Hartford, Conn.
I. & M.—Ireland & Matthews Mfg. Co., Detroit, Mich.
Indestructible—The Templeton Mfg. Co., Hyde Park, Mass.
Loyal Brass Co., Cleveland, O.
Michigan Metal Spinning Mfg. Co., Detroit, Mich.
Naugatuck Seamless—Naugatuck Mfg. Co., Naugatuck, Conn.
Open Neck—L. & S. Co., Atlantic City, N. J.
Peerless Mfg. & Supply Co., New York, N. Y.
Reliance Gauge Column Co., The, Cleveland, O.
Roberts Steam Specialty Co., The, Cleveland, O.
Sherwood Brass Works, Detroit, Mich.
Shwab Bros. Co., New York, N. Y.
Standard Brass Mfg. Co., Utica, N. Y.
Star—U. T. Hungerford Brass & Copper Co., New York.
Toledo—Reichert Float & Mfg. Co., The, Toledo, O.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
Union Metal Works, Chelsea, Mass.
Waterbury Mfg. Co., Waterbury, Conn.
Webco—F. W. Webb Mfg. Co., Boston, Mass.
Weber Bros. Metal Works, Chicago, Ill.
Wiseco—J. B. Wise, Inc., Watertown, N. Y.
Witch—Carpenter & Paterson, Inc., East Boston, Mass.
Wolff Mfg. Corp., Chicago, Ill.

FLOATS, CLOSET TANK, GLASS.

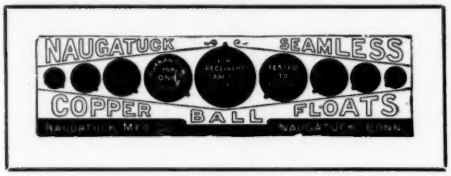
Bache, Semon, & Co., New York, N. Y.
C.D.—Chas. Dargent, Brooklyn, N. Y.
Everlasting—John Douglas Co., Cincinnati, O.
Open Neck—L. & S. Co., Atlantic City, N. J.
Lehnert & Co,, New York City, N. Y.

FLOATS, CLOSET TANK, HARD RUBBER.

American Hard Rubber Co., New York N. Y.
Enduro—Woodward-Wanger Co., Philadelphia, Pa
Durst Mfg. Co., Inc., New York, N. Y.
Good Mfg. Co., Inc., New York, N. Y.
Goodrich, B. F. Rubber Co., Akron, O.
Luzerne Rubber Co., Trenton, N. J.
Miller Rubber Co., Akron, O.

FLOATS, COPPER, STEAM TRAP AND BOILED

American Mfg. Co., Dayton, O.
Anderson Co., The V. D., Cleveland, O.
Boston Brass Co., Waltham, Mass.
Dahlquist Mfg. Co., Boston, Mass.
Fisher Governor Co., Inc., Marshalltown, Ia.



Gerstein & Cooper Co., South Boston, Mass.
Harris—Arthur Harris & Co., Chicago, Ill.
Hercules—Hercules Float Works, Springfield, Mass.
Michigan Metal Spinning Mfg. Co., Detroit, Mich.
Naugatuck Mfg. Co., Naugatuck, Conn.

METAL FLOATS

Any size or style, for any purpose, made according to your specifications

Weber Bros. Metal Works 112 N. Jefferson St. **CHICAGO**

Ford—Ford Regulator Corp., New York, N. Y
Reliance Gauge Column Co., Cleveland, O. (seamless).
Roberts Steam Specialty Co., Cleveland, O.
Weber Bros. Metal Works, Chicago, Ill.

FLUX, FOUNDRY AND WELDING.

Admiral—Admiral Welding Machine Co., Kansas City, Mo.
American Compound Co., Boston, Mass. (Cast iron. "Mapco" Aluminum, Climax compound, Cherry compound.)
Anti-Borax Compound Co., Fort Wayne, Ind. "Anti-Borax," "Braz-Cast," "E. Z," "Crescent."
Atlas Foundry Co., Irvington, N. J. (Trade names—Gray Badger, Red Devil (cast iron); Star Brand (brass and bronze); Star Brand aluminum.)
Basic Mineral Co., The, Pittsburgh, Pa. (Trade names—Keystone Thermo Molybedum, Areolite, Radioclarite.)
Buchanan, C. G., Chemical Co., Cincinnati, O.
Cornell—The Cleveland Flux Co., Cleveland, O
Cortland Welding Compound Co., Cortland, N. Y. (Trade names—Cherry Heat, Climax, Borax-ette, Vulcan.)
Eveready—Oxweld Acetylene Co., New York, N. Y.
Hoxite—The Hoxite Company, Stamford, Conn.
Imperial Brass Mfg. Co., Chicago, Ill. "Imperial."
Laffitte—The Phillips-Laffitte Co., Philadelphia, Pa.
Milburn, Alexander Co., The, Baltimore, Md.
Morey Flux & Chemical Co., Parkesburg, Pa.
Red Devil—Modern Engineering Co., St. Louis, Mo.
Sandoval—Sandoval Zinc Co., Chicago, Ill.
Smith Welding Equipment Corp., Minneapolis, Minn. "A-Mal-Gam."
Star—Cortland Welding Compound Co., Cortland, N. Y.
Tip-It—Tip-It, Inc., New York, N. Y.
Torchweld Equipment Co., Chicago, Ill. (Trade names—Easy Flow, Metalcast, Ruby, Torchweld, Universal.)
Weldit—Weldit Acetylene Co., Detroit, Mich.
Welfex—Chemical Treatment Co., New York, N. Y.

FLUX, GALVANIZING

Empire—Empire Metal Co., Syracuse, N. Y.
United American Metals Corp., Brooklyn, N. Y. "Stanbrite."

FLUXES, SOLDERING.

(See "Soldering Flux, Paste, Stick and Liquid")

FORGES.

American Gas Furnace Co., Elizabeth, N. J.
Anthony Nebulyte—The Anthony Co., Long Island City, N. Y. (gas and oil).
Beach-Russ Co., Brooklyn, N. Y. (gas and gasoline)
Bradley & Son, C. C., Syracuse, N. Y. (Hard and soft coal, and coke).
Buffalo Forge Co., Buffalo, N. Y.
Canedy-Otto Mfg. Co., Chicago Heights, Ill. (Trade names—C.-O., Royal, Tiger.)
Champion Blower & Forge Co., Lancaster, Pa. (stationary). (Trade names—Eureka, 400, Lancaster, Midway.)
Cummings, David, Portable Forge Works, Chicago, Ill.
Eclipse—Eclipse Fuel Engineering Co., Rockford, Ill.
Improved Appliance Co., Brooklyn, N. Y.
Patterson—Brown & Patterson, Brooklyn, N. Y.
Rockwell, W. S., Co., New York, N. Y.
Scientific—The Fairbanks Co.l, New York, N. Y.
Star Mfg. Co., The, New Lexington, O.
Sturtevant—B. F. Sturtevant Co., Hyde Park, Mass
Universal—Canton Foundry & Machine Co., The, Canton, O.
Wayne Tank & Pump Co., Ft. Wayne, Ind.

FORGES, ELECTRIC.

C-O—Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Champion Blower & Forge Co., Lancaster, Pa.

FORGES, OIL AND GAS.

(See also "Furnaces or Forges, Rivet.")

Anthony Co., The, Long Island City, N. Y.
Billow—National Supply Co., Chicago, Ill.
Buckeye—Macleod Co., The, Cincinnati, O.
Buzzer—Chas. A. Hones, Inc., Baldwin, L. I., N. Y.
Hauck—Hauck Mfg. Co., Brooklyn, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Rockwell Co., W. S., New York, N. Y.
Tate, Jones & Co., Inc., Leetsdale, Pa.
Wayne Tank & Pump Co., Ft. Wayne, Ind.

FORGES, PORTABLE.

Anthony Co., The, Long Island City, N. Y.
Buffalo—Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa. "Champion," "Midway."
Chapman—Chapman Engine Co., Marcellus, Mich.
Cumming, David, Portable Forge Works, Chicago, Ill. "Cumming."
Hauck—Hauck Mfg. Co., Brooklyn, N. Y.
Lovejoy—Lovejoy Tool Works, Chicago, Ill.
National Supply Co., Chicago, Ill.
Rockwell, W. S., Co., New York, N. Y.
Scientific—Star Mfg. Co., New Lexington, O.
Tate, Jones & Co., Inc., Leetsdale, Pa.
Wayne Tank & Pump Co., Ft. Wayne, Ind.

FORGES, RIVET.

(See "Furnaces or Forges, Rivet, Heating.")

FORGES, SAW BRAZING.

Machinery Co. of America, Big Rapids, Mich.

FORKS, FOR COAL, COKE, ETC.

Diamond, Fairmount, Geneva, Otsego, True Temper—American Fork & Hoe Co., Cleveland, O.

FORKS, RAIL.

Anderson, W. H., Tool & Sup. Co., Detroit, Mich.
Beall Bros., Inc., Alton, Ill.
Hubbard & Co., Pittsburgh, Pa.
Iron City Tool Works, Pittsburgh, Pa.
Klein-Logan Co., The, Pittsburgh, Pa.
Oliver Iron & Steel Corp., Pittsburgh, Pa.
Stanley Rule & Level Plant, Atha Dept., New Britain, Conn.
Verona Tool Works, Pittsburg, Pa.
Warren Tool & Forge Co., The, Warren, O.
Warwood Tool Co., Wheeling, W. Va.

FOUNTAINS, DRINKING, ANTI-FREEZING.

American Foundry & Mfg. Co., St. Louis, Mo.
Ebco—D. A. Ebinger Sanitary Mfg. Co., Columbus, O.
Hart Mfg. Co., Louisville, Ky.
Murdock—Murdock Mfg. & Supply Co., Cincinnati, O.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Taylor, Halsey W., Co., Warren, O.

FOUNTAINS, DRINKING, CAST IRON.

American Foundry & Mfg. Co., St. Louis, Mo.
Casey-Hedges Co., The, Chattanooga, Tenn.
Century Brass Works, Inc., Belleville, Ill.
Clow, James B., & Sons, Chicago, Ill.
Concord—Concord Foundry Co., Concord, N. H.
Illinois Malleable Iron Co., Chicago, Ill.
Meeco—Manufacturing Equipment & Engineering Co., Framingham, Mass.
Mott Iron Works, The J. L., Trenton, N. J. (Trade names—Rockland, Coolstream.)
Reading Foundry & Supply Co., Reading, Pa.
Superior Iron Works, Superior, Wis.
Taylor, Halsey W., Co., Warren, O.

FOUNTAINS, DRINKING, PORCELAIN ENAMELED.

American Foundry & Mfg. Co., St. Louis, Mo.
Century Brass Works, Inc., Belleville, Ill.
Crane Co., Chicago, Ill. (Trade names—Creta, Florian, Durus, Media, Luxton, Odette, Pergola, Tyrone, Whitney, Woodsley, Nedus, Altruria, Alcove.)
Ebco—D. A. Ebinger Sanitary Mfg. Co., Columbus, O.
Federal-Huber Co., Chicago, Ill.
Imperial Brass Mfg. Co., Chicago, Ill. "Watrous."
Jones Hollow Ware Co., Baltimore, Md.
Kohler Co., Kohler, Wis.
Mott, J. L., Iron Works, Trenton, N. J. (Trade names—Delaware, Detroit, Glenmore, Glenwood.)
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Rundle Mfg. Co., Milwaukee, Wis.
Southern Beauty—Crane Enamelware Co., Chattanooga, Tenn.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Vitreous Enameling & Stamping Co., New York, N. Y.
White Beauty—The Humphryes Mfg. Co., Mansfield, Ohio.
Wolff Mfg. Corp., Chicago, Ill.

FOUNTAINS, DRINKING, PORCELAIN AND VITREOUS CHINA.

Allen Filter Co., Toledo, O.
Alliance Vitreous China Co., Alliance, O.
Chicago Pottery Co., Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Clyde Surety—The Meyer-Sniffen Co., New York, N. Y.
Crane Co., Chicago, Ill. (Trade names—Altruria, Ionia, Suspendo.)
Ebco—D. A. Ebinger Sanitary Mfg. Co., Columbus, O.
Eljer Co., Ford City, Pa. (Trade names—Bristol, Congress, Duluth, Vermont.)
Elite Pottery Co., Trenton, N. J.
Federal-Huber Co., Chicago, Ill.
General Ceramics Co., New York, N. Y.
Hygela—Peck Bros & Co., New Haven, Conn.
Imperial Brass Mfg. Co., Chicago, Ill. "Watrous."
Jewett Refrigerator Co., Buffalo, N. Y.
Maddock's, Thos., Sons Co., Trenton, N. J. (Trade names—Madaco, Madantic, Madallion, Madanglo, Madaware, Madola.)
Monument Pottery Co., Trenton, N. J.
Mott, J. L., Iron Works, Trenton, N. J. (Trade names—Cascade, Crystal Stream, Juniata, Parabola, Purita, Puro, Rideau, Saratoga, Telephone, Underwood.)
Nelson, N. O., Mfg. Co., St. Louis, Mo.
Public—John Douglas Co., Cincinnati, O.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Reading Foundry & Supply Co., Reading, Pa.
Resolute Pottery Co., Trenton, N. J.
Rundle-Spence Mfg. Co., Milwaukee, Wis.
Sesco—Sanitary Earthenware Specialty Co., Trenton, N. J.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Taylor, Halsey W., Co., Warren, O.
Trenjer Specialty Co., Trenton, N. J.
Trenton Potteries Co., Trenton, N. J. (Trade names—Tepeco, Tuxedo.)
West Coast Porcelain Mfrs., San Francisco, Cal.
Wheeling Sanitary Mfg. Co., Wheeling, W. Va.
Wolff Mfg. Corp., Chicago, Ill.

FOUNTAINS, DRINKING, REFRIGERATED.

Audiffren Refrigerating Co., New York, N. Y.
Century Brass Works, Inc., Belleville, Ill.
Frantz Refrigeration Co., Reading, Pa.
Grand Rapids Water Cooler Co., Grand Rapids, Mich.
Jewett—The Jewett Refrigerator Co., Buffalo, N. Y.
Loeber, Henry G., Co., New York, N. Y.
Meeco—Manufacturing Equipment & Engineering Co., Framingham, Mass.
Murdock Mfg. & Supply Co., Cincinnati, Ohio.
National—Klemm & Co., Chicago, Ill.
Puritan Cantonment—The Halsey W. Taylor Co., Warren, O.
Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Quickool—Central Brass Mfg. Co., Cleveland, O.

FOUNTAINS, DRINKING, SANITARY (Bubbling).

Acme—Acme Brass Works, Detroit, Mich.
Allen Sanitary—Allen Filter Co., Toledo, O.
American Bubble—American Foundry & Mfg. Co., St. Louis, Mo.
Ashton Valve Co., Cambridge, Mass.
Camden Pottery Co., Camden, N. J.
Casey-Hedges Co., Chattanooga, Tenn.
Central Brass Mfg. Co., Cleveland, O.
Century—Century Brass Works, Inc., Belleville, Ill.
Chicago Pottery Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Chi-Fau-Co.—The Chicago Faucet Co., Chicago, Ill.
Clow, Jas. B., & Sons, Chicago, Ill.
Douglas, John, Co., The, Cincinnati, Ohio.
Ebco—The D. A. Ebinger Sanitary Mfg. Co., Columbus, Ohio.
Edwardsville Brass Works, Edwardsville, Ill.
Empire—Empire Brass Mfg. Co., Cleveland, O.
Everson Filter Co., Chicago, Ill.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Grammes, L. F., & Sons, Allentown, Pa.
Grand Rapids Water Cooler Co., Grand Rapids, Mich.
Hajoca Corporation, Philadelphia, Pa.
The Hart Mfg. Co., Louisville, Ky. "Evercool."
Haws Sanitary Drinking Faucet Co., Berkeley, Cal.
Imperial Brass Mfg. Co., Chicago, Ill. "Watrous."
Knott, L. E., Apparatus Co., Cambridge, Mass.
Kohler Co., Kohler, Wis.
Kretchmer—Kretchmer Mfg. Co., Dubuque, Ia.
Loeber, Henry G., Co., New York, N. Y. "Sanitor," "Rainbow."
Maddock's, Thos., Sons Co., Trenton, N. J. (Trade names—Madalion, Madaware, Madola, Madorian, Madside, Madstream.)
Meeco—Manufacturing Equipment & Eng. Co., Framingham, Mass.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Mott, J. L., Iron Works, Trenton, N. J. Trade names—Cascade, Rideau, Saratoga, Parabola, Underwood, Crystal Stream, Glenwood, Purita, Puro, Saranac, Cayuga, Glenmore, Sagamore.
Mueller Co., Decatur, Ill.
Perfection—Rochester Germicide Co., Rochester, N. Y.
Prostco—Providence Steam Trap Co., Providence, R. I.
Puro, Puro Junior—Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Reading Foundry & Supply Co., Reading, Pa.
Royal Brass Mfg. Co., Cleveland, O.
Rundle Mfg. Co., Milwaukee, Wis.
Rundle-Spence Mfg. Co., Milwaukee, Wis.
Sanitary—Puro Sanitary Drinking Fountain Co., Haydenville, Mass.
Side Stream—The Trenton Potteries Co., Trenton, N. J.
Trenjer Specialty Co., Trenton, N. J.
Taylor, Halsey W., Co., Warren, O. (Trade names—Taylor, Cantonment, Puritan.)
Wheaton A. W., Brass Works, Newark, N. J.

FOUNTAINS, LAWN.

Clow, James B., & Son, Chicago, Ill.
Myers & Bro., F. E., Ashland, O.
Rockland—J. L. Mott Iron Works, Trenton, N. J.
Rundle-Spence Mfg. Co., Milwaukee, Ind.
University—Central Supply Co., Minneapolis, Minn.

FOUNTAINS, WASH.

Bradley Washfountain Co., Milwaukee, Wis.
Ebco—The D. A. Ebinger Sanitary Mfg. Co., Columbus, O.

FRAMES, BINDER, POWER TRANSMISSION.

Brown, A. & F., Co., The, Elizabethport, N. J.
Dodge Mfg. Corp., Mishawaka, Ind.
Goldens Foundry & Machine Co., Columbus, Ga.
Hanson Clutch & Machinery Co., Tiffin, O.
Hill Clutch Machine & Foundry Co., Cleveland, O.
Sellers, William, & Co., Inc., Philadelphia, Pa.
Wood, T. B., Sons Company, Chambersburg, Pa.

FRAMES, FRICTION.

Rockwood Mfg. Co., The, Indianapolis, Ind.

FRAMES, GRINDSTONE.

American Tool & Machine Co., Boston, Mass.
Athol Machine & Foundry Co., Athol, Mass.
Cleveland Stone Co., Cleveland, O.
Hoppen—J. E. Hoppen & Sons, Belleville, N. J.
Whitman & Barnes Mfg. Co., Akron, O.

FRAMES, HACK SAW.

AAA—E. C. Atkins & Co., Indianapolis, Ind.
Cook's Burro 1046—The H. C. Cook Co., Ansonia, Conn.
Crescent Co., Inc., The, Meriden, Conn.
Diamond Saw & Stamping Works, Buffalo. "Sterling."
Forsberg Mfg. Co., The, Bridgeport, Conn.
Goodell-Pratt Co., Greenfield, Mass.
Griffin—G. W. Griffin Co., Franklin, N. H.
Irvington Mfg. Co., Irvington, N. J.
Johnson, Wm., Firm of, Newark, N. J.
K-D Manufacturing Co., Lancaster, Pa. "K-D Convertible."
Matchless—Bridgeport Hardware Mfg. Corp., Bridgeport, Conn.
Moore Bros., Jamestown, N. Y.
Napier Saw Works, Inc., Middletown, N. Y.
Ohlen-Bishop Co., The, Columbus, O.

Peerless Machine Co., Racine, Wis.
Pilot—Consolidated Tool Works, Inc., New York, N. Y.
Red Devil—Smith & Hemenway Co., Irvington, N. J.
Simonds Saw & Steel Co., Fitchburg, Mass.
Starrett Co., The L. S., Athol, Mass.
Thompson, Henry G., & Son Co., New Haven, Conn. "Milford Master Grip," "Midget Mil Flex."
True Aim—Dikeman Mfg. Co., Norwalk, Conn.
Union Tool Co., Orange, Mass.
Union Hardware Co., Torrington, Conn.
Universal, Utility—Millers Falls Co., Millers Falls, Mass.
Wizard—Bay State Saw & Tool Mfg. Co., Inc., Winchester, Mass.

FRAMES, HAND SAW.

Atkins—E. C. Atkins Co., Indianapolis, Ind.
Milford—The Henry G. Thompson & Son Co., New Haven, Conn.

FRAMES, SHAFT HANGER.

Brown, A. & F., Co., The, Elizabethport, N. J.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Medart Company, The, St. Louis, Mo.
Royersford Foundry & Machine Co., Royersford, Pa.
Wood, T. B., Sons Company, Chambersburg, Pa.

FRAMES, WALL.

Bond Foundry & Machine Co., Manheim, Pa.
Brown, A. & F., Co., The, Elizabethport, N. J.
Chicago Pulley & Shafting Co., Chicago, Ill.
Dodge Mfg. Corp., Mishawaka, Ind.
Golden's Foundry & Machine Co., Columbus, Ga.
Hanson Clutch & Machinery Co., Tiffin, O.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Medart Company, The, St. Louis, Mo.
Royersford Foundry & Machine Co., Royersford, Pa.
Wood, T. B., Sons Company, Chambersburg, Pa.

FRAMES AND COVERS, WATER METER.

Clow, James B., & Sons, Chicago, Ill.
Ford Ram's Horn—Ford Meter Box Co., Wabash, Ind.

FREEZMETERS.

Freas—Francis L. Freas Glass Works, Inc., Conshohocken, Pa.

FRICTION CLUTCHES.

(See "Clutches, Friction.")

FRONTS, BOILER.

Budd Grate Co., Philadelphia, Pa.
Casey-Hedges Co., The, Chattanooga, Tenn.
Ferguson & Lange Foundry Co., Chicago, Ill.
Flynn & Emrich Co., Baltimore, Md.
Golden's Foundry & Machine Co., Columbus, Ga.
Hartley Boiler Works, Montgomery, Ala.
Hoosier—The Sinker-Davis Co., Indianapolis, Ind.
Toronto Foundry & Machine Co., Inc., Toronto, O.
Treadwell Engineering Co., New York, N. Y.
Washburn & Granger, Inc., New York.
Wildman Boiler Works, Chicago, Ill.

FUNNELS AND MEASURES.

Lawco—The F. H. Lawson Co., Cincinnati, O.

FURNACES, ANGLE HEATING.

Hauck Mfg. Co., Brooklyn, N. Y.
Rockwell—W. S. Rockwell Co., New York, N. Y.
Wayne Tank & Pump Co., Ft. Wayne, Ind.

FURNACES, ANNEALING AND TEMPERING.

(See "Furnaces, Gas and Oil Burning.")

FURNACES, BILLET HEATING.

S. C. & H.—The Strong, Carlisle & Hammond Co., Cleveland, O.

FURNACES, BLAST.

American Gas Furnace Co., Elizabeth, N. J.
Anthony Co., The, Long Island City, N. Y.
Billow—National Supply Co., Chicago, Ill.
Hamler Boiler & Tank Co., Chicago, Ill.
Hartman Co., Philadelphia, Pa.
Hausfeld—Campbell-Hausfeld Co., The, Harrison, Ohio.
Improved Appliance Co., Brooklyn, N. Y.
Johnson Gas Appliance Co., Cedar Rapids, Iowa.
Mackintosh, Hemphill & Co., Pittsburg, Pa.
Mesta Machine Co., Pittsburg, Pa.
Miner & Peck Mfg. Co., New Haven, Conn.
Morgan Engineering Co., Alliance, O.
Pennsylvania Engineering Works, New Castle, Pa.
Pittsburg Valve, Foundry & Const. Co., Pittsburg, Pa
Riter-Conley Co., Pittsburg, Pa.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Tate, Jones & Co., Inc., Leetsdale, Pa.

FURNACES, BLAST, FOR PLUMBERS.

Double Blast Mfg. Co., North Chicago, Ill.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.

FURNACES, BOILER, SMOKELESS.

(See also "Stokers, Mechanical.")

Brightman Furnace Co., Cleveland, O.
Bros—Wm. Bros. Boiler & Mfg. Co., Minneapolis, Minn.
Burke's—Burke Engineering Co., Chicago, Ill.
Climax Smoke Preventer Co., Boston, Mass.
Detroit Underfeed, Detroit "V" Type—Detroit Stoker Co., Detroit, Mich.
Down Draft—Chicago Down Draft Furnace Co., Chicago, Ill.
Hagan, Geo. J., Pittsburg, Pa.
Foltz—Foltz Smokeless Furnace Co., Chicago, Ill.
H. S. G.—The Houston, Stanwood & Gamble Co., Cincinnati, O.
Harrisburg Fdy. & Mach. Wks., Harrisburg, Pa.
Hawley—Hawley Down Draft Furnace Co., Easton, Pa.
Hawley-O'Brien—John O'Brien Boiler Works, St Louis, Mo.
Herbert—The Herbert Boiler Co., Chicago, Ill.
Hotchkiss—Hotchkiss Engineering Corp., Memphis, Tenn.
Improved Chicago Hawley—Chicago Down Draft Furnace Co., Chicago, Ill.
McKenzie Furnace Co., Chicago.
McMillan—James McMillan & Co., Chicago, Ill.
Model—Automatic Furnace Co., Dayton, O.
O'Brien Hawley—John O'Brien Boiler Works Co., St. Louis, Mo.
Thatcher Company, The, Newark, N. J.
Twin Fire Furnace Co., Chicago, Ill.
Washburn & Granger, Inc., New York, N. Y.
Wilkinson—Roach Stoker Co., Philadelphia, Pa.

FURNACES AND FORGES, BRAZING.

American Gas Furnace Co., Elizabeth, N. J.
Bellevue Furnace Co., Detroit, Mich.
Bernz, Otto, Co., Newark, N. J.
Billow—National Supply Co., Chicago, Ill.
Buzzer—Chas. A. Hones, Inc., Baldwin, L. I., N. Y.
Clayton & Lambert Mfg. Co., Detroit, Mich.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Hauck Mfg. Co., Brooklyn, N. Y.
Improved Appliance Co., Brooklyn, N. Y.
Lovejoy Tool Works, Chicago, Ill.
Monarch Engineering & Mfg. Co., Baltimore, Md.
National Rubber & Specialties Co., Cincinnati, Ohio.
Rockwell—W. S. Rockwell Co., New York, N. Y.
C. U. Scott & Son, Rock Island, Ill. "Scott."
Turner Brass Wks., The, Sycamore, Ill.
Wayne Tank & Pump Co., Ft. Wayne, Ind.

FURNACES, FOR CALCINING, ROASTING, ETC.

U. S.—United States Smelting Furnace Co., Belleville, Ill.

FURNACES, CASE HARDENING, LEAD AND CYANIDE HARDENING.

American Gas Furnace Co., Elizabeth, N. J.
Anthony Co., The, Long Island City, N. Y.
Bennett, W. R. Co., Hartford, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I. (coal).
Buzzer—Chas. A. Hones, Inc., Baldwin, Long Island, N. Y.
Eclipse—Eclipse Fuel & Engineering Co., Rockford, Ill.
Hauck Mfg. Co., Brooklyn, N. Y.
Improved Appliance Co., Brooklyn, N. Y.
Johnson—Johnson Gas Appliance Co., Cedar Rapids, Iowa.
Kidder Furnace Co., The, Canton, O. "Kidder."
Littleford—Littleford Bros., Cincinnati, O.
Mahrvel—Mahr Mfg. Co., Minneapolis, Minn.
Monarch Engineering & Mfg. Co., The, Baltimore, Md.
Rockwell—W. S. Rockwell Co., New York, N. Y
S. C. & H.—Strong, Carlisle & Hammond Co., Cleveland, O.
Stewart—Chicago Flexible Shaft Co., Chicago, Ill.
Tate, Jones & Co., Inc., Leetsdale, Pa.
Wayne Tank & Pump Co., Ft. Wayne, Ind.

FURNACES, ELECTRIC, ANNEALING, TEMPERING AND MELTING.

Booth—Booth Electric Furnace Co., Chicago, Ill.
Bristol Co., The, Waterbury, Conn.
Eaton—Eaton Electric Furnace Co., Taunton, Mass.
Electric Furnace Co., Alliance, O.
General Electric Co., Schenectady, N. Y.
Hoskins—Hoskins Mfg. Co., Detroit, Mich.

Hughes Electric Heater Co., Chicago, Ill.
Hump Method—Leeds & Northrup Co., Philadelphia, Pa.
Kidder Furnace Co., The, Canton, O.
Ludlum—Ludlum Electric Furnace Corp., New York, N. Y.
Moore Rapid 'Lectromelt—Pittsburgh Electric Furnace Corp., Pittsburgh, Pa.
Pyrolectric Instrument Co., Trenton, N. J.
Rockwell—W. S. Rockwell Co., New York, N. Y.
Ryan—Lancaster Iron Works, Lancaster, Pa.
S. C. & H.—The Strong, Carlisle & Hammond Co., Cleveland, O.
Steinmetz Heating Co., Inc., New York, N. Y. "Globar."
Wile Electric Furnace Co., Pittsburgh, Pa. "Wile."

FURNACES, ENAMELING.

American Gas Furnace Co., Elizabeth, N. J.
Anthony Co., The, Long Island City, N. Y.
Bellevue Furnace Co., Detroit, Mich.
Billow—National Supply Co., Chicago, Ill.
Macleod Co., The, Cincinnati, O.
Rockwell—W. S. Rockwell Co., New York, N. Y.
Stewart—Chicago Flexible Shaft Co., Chicago, Ill.
Tate, Jones & Co., Inc., Leetsdale, Pa.
U. S.—United States Smelting Furnace Co., Belleville, Ill.

FURNACES, FORGING.

Anthony Co., The, Long Island City, N. Y.
Baush—Baush Machine Tool Co., Springfield, Mass
Bellevue Furnace Co., Detroit, Mich.
Billow National Supply Co., Chicago, Ill.
Buffalo Forge Co., Buffalo, N. Y. (portable coal)
Buzzer—Charles A. Hones, Inc., Baldwin, Long Island, N. Y.
Chicago Flexible Shaft Co., Chicago, Ill. "Stewart."
Improved Appliance Co., Brooklyn, N. Y.
Johnson—Johnson Gas Appliance Co., Cedar Rapids, Iowa.
Macleod Co., The, Cincinnati, O. "Buckeye."
Mahrvel—Mahr Mfg. Co., Minneapolis, Minn.
Monarch Engineering & Mfg. Co., Baltimore, Md.
Rockwell, W. S., Co., New York, N. Y.
Ryan F. J. & Co., Philadelphia, Pa.
S. C. & H.—Strong, Carlisle & Hammond Co., Cleveland, O.
Tate, Jones & Co., Inc., Leetsdale, Pa.
Wayne Tank & Pump Co., Ft. Wayne, Ind.

FURNACES, GAS OR OIL, ANNEALING AND TEMPERING, WITH PREHEATER.

Kidder Furnace Co., The, Canton, O. "Kidder."
S. C. & H.—The Strong, Carlisle & Hammond Co., Cleveland, O.

FURNACES, GAS AND OIL BURNING.

(See also "Furnaces, Annealing," and "Furnaces, Forging.")

Abbe Engineering Co., New York, N. Y.
American Gas Furnace Co., The, Elizabeth, N. J.
Anthony Co., The, Long Island City, N. Y.
Baird—Baird Pneumatic Tool Co., Kansas City, Mo
Baush—Baush Machine Tool Co., Springfield, Mass.
Beach-Russ Co., Brooklyn, N. Y.
Billow—National Supply Co., Chicago, Ill.
Buckeye Products Co., Cincinnati, O.
Buckeye—Macleod Co., The, Cincinnati, O.
Buzzer—Charles A. Hones, Inc., Baldwin, Long Island, N. Y.
Calorex—W. N. Best Furnace & Burner Corp., New York, N. Y.
Ecko—Edward Katzinger Co., Chicago, Ill.
Eclipse Fuel Engineering Co., Rockford, Ill.
Gas Appliance Co., The, Cleveland, O.
General Combustion Co., The, Chicago, Ill.
Gilbert & Barker—Gilbert & Barker Mfg. Co., Springfield, Mass.
Hammel—Hammel Oil Burner Co., Los Angeles, Cal.
Heat Rite—John E. Mannen Co., Cleveland, O.
Henry Bros., Massillon O.
Improved Appliance Co., The, Brooklyn, N. Y.
Ingersoll Rand Co., New York, N. Y.
Johnson—Johnson Gas Appliance Co., Cedar Rapids, Ia.
Kidder Furnace Co., The, Canton, O. "Do-All."
Kirkwood—Tate, Jones & Co., Leetsdale, Pa.
Koven, L. O., & Bro., Jersey City, N. J.
Mahrvel—Mahr Mfg. Co., Minneapolis, Minn.
Midget Universal—Fitzgerald Heat Treating Co., Springfield, Mass.
Mirco—Lancaster Iron Works, Inc., Lancaster, Pa.
Nebulyte—The Anthony Co., Long Island City, N. Y.
Ohio—The Bennett Furnace Co., Cleveland, O.
Penn—Pensylvania Furnace & Iron Co., Warren, Pa.
Ryan, F. J., & Co., Philadelphia, Pa.
Scott—C. U. Scott & Son, Rock Island, Ill.
S. C. & H.—The Strong, Carlisle & Hammond Co., Cleveland, O.
Simplex—Simplex Tool & Supply Co., Boston, Mass.
Stewart—Chicago Flexible Shaft Co., Chicago, Ill.
Volcano—Surface Combustion Co., New York, N. Y.
Wayne Tank & Pump Co., Ft. Wayne, Ind.

FURNACES, MELTING, ALUMINUM.

S. C. & H.—The Strong, Carlisle & Hammond Co., Cleveland, O.

FURNACES, METAL MELTING.

Aeroil—Aeroil Burner Co., Inc., Union Hill, N. J.
American Gas Furnace Co., Elizabeth, N. J.
American Saw & Tool Works, Chicago, Ill.
Anthony Co., The, Long Island City, N. Y.
Barthel—Van Praag Sales Corp., New York, N. Y.
Bellevue Furnace Co., Detroit, Mich.
Booth Electric Furnace Co., Chicago, Ill.
Biehl Iron Works, Inc., The, Reading, Pa.
Billow—National Supply Co., Chicago, Ill.
Buckeye Products Co., Cincinnati, O.
Buckeye—Macleod Co., The, Cincinnati, O.
Buzzer—Charles A. Hones, Inc., Baldwin, Long Island, N. Y.
Calorex—W. N. Best Furnace & Burner Corp., New York, N. Y.
Clow, James B., & Sons, Chicago, Ill.
Coleman—Foundry Equipment Co., Cleveland, O.
Eclipse—Eclipse Fuel & Engineering Co., Rockford, Ill.
Economic—A. P. Smith Mfg. Co., East Orange, N. J.
Focht, Geo., Sons, Hoboken, N. J.
General Electric Co., Schenectady, N. Y.
Hauck Mfg. Co., Brooklyn, N. Y.
Hausfeld—The Campbell-Hausfeld Co., Harrison, O.
Hawley-Schwartz—Hawley Down Draft Furnace Co., Easton, Pa.
Improved Appliance Co., Brooklyn, N. Y.
Johnson—Johnson Gas Appliance Co., Cedar Rapids, Iowa.
Koven, L. O., & Bro., Jersey City, N. J.
Littleford Bros., Cincinnati, O.
Lunkenheimer—The Strong, Carlisle & Hammond Co., Cleveland, O.
Mahrvel—Mahr Mfg. Co., Minneapolis, Minn.
Monarch Engineering & Mfg. Co., The, Baltimore, Md. "Monarch Rockwell," "Steele-Harvey."
Mueller Co., Decatur, Ill.
National—Phillips, Doup & Co., Brooklyn, N. Y.
Obermayer, S., Co., The, Cincinnati, Ohio.
Patterson—Brown & Patterson, Brooklyn, N. Y.
Paxson Co., J. W., Philadelphia, Pa.
Pollard—Joseph G. Pollard Co., Inc., Brooklyn, N. Y.
Rockwell, W. S., Co., New York, N. Y.
Rowell Mfg. Co., Appleton, Wis.
S. C. & H.—Strong, Carlisle & Hammond Co., Cleveland, O.
Scott, C. U., & Son, Rock Island, Ill.
Stewart—Chicago Flexible Shaft Co., Chicago, Ill.
Surface Combustion Co., The, Toledo, Ohio.
Turner Hot Blast—The Turner Brass Works, Sycamore, Ill.
U. S.—U. S. Smelting Furnace Co., Belleville, Ill.
Wayne Tank & Pump Co., Ft. Wayne, Ind.

FURNACES OR FORGES, RIVET AND BOLT HEATING.

American Gas Furnace Co., Elizabeth, N. J.
Anthony Co., The, Long Island City, N. Y.
Beach-Russ Co., New York, N. Y.
Bellevue Furnace Co., Detroit, Mich.
Billow—National Supply Co., Chicago, Ill.
Buckeye—The Macleod Co., Cincinnati, O.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Cumming, David, Portable Forge Works, Chicago, Ill. "Cumming."
Eclipse—Eclipse Fuel & Engineering Co., Rockford, Ill.
General Electric Co., Schenectady, N. Y.
Hauck Mfg. Co., Brooklyn, N. Y.
Improved Appliance Co., Brooklyn, N. Y.
Lovejoy Tool Works, Chicago, Ill.
Mahrvel—Mahr Mfg. Co., Minneapolis, Minn.
Monarch Engineering & Mfg. Co., The, Baltimore, Md. "Eclipse."
Rockwell, W. S., Co., New York, N. Y.
Ryan, F. J. & Co., Philadelphia, Pa.
S. C. & H.—Strong, Carlisle & Hammond Co., Cleveland, O. (stationary and portable).
Scott, C. U., & Son, Rock Island, Ill.
Selas—The Selas Co., Philadelphia, Pa.
Stewart—Chicago Flexible Shaft Co., Chicago, Ill.
Volcano—Surface Combustion Co., New York, N. Y.
Wayne Tank & Pump Co., Ft. Wayne, Ind.

FURNACES, SMELTING.

Allis-Chalmers Co., Milwaukee, Wis.
Hawley Down Draft Furnace Co., Easton, Pa. "Hawley Schwartz."
Improved Appliance Co., Brooklyn, N. Y.
Pennsylvania Engineering Works, New Castle, Pa.
Rockwell, W. S., Co., New York, N. Y.
Wellman-Seaver-Morgan Co., Cleveland, O.

FURNACES, SOLDERING.
(Gas, Gasoline, Kerosene.)

Always Reliable—Otto Bernz Co., Inc., Newark, N. J.
American Gas Furnace Co., Elizabeth, N. J.
American Saw & Tool Works, Chicago, Ill.
Barthel—Globe Gas Light Co., Boston, Mass.
Barthel—Van Praag Sales Corp., New York, N. Y.
Beach-Russ Co., New York, N. Y.
Berger Bros. Co., Philadelphia, Pa.
Bryant—The Bryant Heater & Mfg. Co., Cleveland, O.
Buzzer—Charles A. Hones, Inc., Baldwin, Long Island, N. Y.
Clayton & Lambert Mfg. Co., Detroit, Mich.
Climax—C. M. Kemp Mfg. Co., Baltimore, Md.
Dangler—Dangler Stove Co., Div., American Stove Co., Cleveland, O.
Dreadnaught—P. Wall Mfg. Supply Co., Pittsburgh, Pa.
Eclipse Fuel & Engineering Co., Rockford, Ill.
Gem—Burgess Soldering Furnace Co., Columbus, O.
General Electric Co., Schenectady, N. Y.
Huffman Mfg. Co., The, Dayton, O.
Improved Appliance Co., Brooklyn, N. Y.
Johnson—Johnson Gas Appliance Co., Cedar Rapids, Ia.
Johnson, Wm., Firm of, Newark, N. J.
Klein—Mathias Klein & Son, Chicago, Ill.
Lovett—A. E. Lovett & Co., East Orange, N. J.
Monarch Engineering & Mfg. Co., The, Baltimore, Md.
Odin Stove Mfg. Co., Erie, Pa.
Penn—Pennsylvania Furnace & Iron Co., Warren, Pa.
Phoenix—Decker Mfg. Co., Newark, N. J.
Pioneer—The Turner Brass Works, Sycamore, Ill.
Quick Meal Stove Co., Division of American Stove Co., St. Louis, Mo.
Reliable—Reliable Stove Co., Div. of American Stove Co., Cleveland, O.
Roper, Geo. D., Corporation, Rockford, Ill.
Rueckert, C., & Co., Chicago, Ill.
S. C. & H.—The Strong, Carlisle & Hammond Co., Cleveland, O.
Scandinavian Western Importing Co., Ltd., New York, N. Y.
Sheffield, Swedish—Henry W. Peabody & Co., New York, N. Y.
Smith, A. P. Mfg. Co., East Orange, N. J.
Star—Burgess Soldering Furnace Co., Columbus, O.
Starbuck—R. M. Starbuck & Sons, Hartford, Conn.
Sun—Sun Vapor Street Light Co., Canton, O.
Superior—Rock Island Mfg. Co., Rock Island, Ill.
Torrid—Geo. W. Diener Mfg. Co., Chicago, Ill.
Victor—Victor Products Corp., Chicago, Ill.
Vulcan—Wm. M. Crane Co., New York, N. Y.
Yost Improved Superior—Yost Mfg. Co., Meadville, Pa. (gas).

FURNACES, TINNING AND GALVANIZING.

Buzzer—Charles A. Hones, Inc., Baldwin, Long Island, N. Y.
Monarch Engineering & Mfg. Co., The, Baltimore, Md.

FURNACES, TOOL AND KNIFE HEATING.

S. C. & H.—The Strong, Carlisle & Hammond Co., Cleveland, O.

FURNACES, WELDING.

Anthony Co., The, Long Island City, N. Y.
Beach-Russ Co., Brooklyn, N. Y.
Billow—National Supply Co., Chicago, Ill.
Calorex—W. N. Best Furnace & Burner Corp., New York, N. Y.
Buckeye—MacLeod Co., The, Cincinnati, O.
Gilbert & Barker Mfg. Co., Springfield, Mass.
Monarch Engineering & Mfg. Co., The, Baltimore, Md.
Rockwell, W. S., Co., New York, N. Y.
Tate, Jones & Co., Inc., Leetsdale, Pa.
Wayne Tank & Pump Co., Ft. Wayne, Ind.

FUSES, FOR BLASTING.

Cordeau-Bickford, Safety — The Ensign-Bickford Co., Simsbury, Conn.
Cordeau—Hercules Powder Co., Wilmington, Del.
Du Pont De Nemours, E. I., & Co., Wilmington, Del. **(Trade names: White and Black, Hemp, Single Tape, Double Tape, Triple Tape, Extra Small Red, Small Red, Planet, Beaver, Charter Oak, Crescent, Anchor, Clover, Reliable, Stag, Blue Label, Comet, Comet Special, Sylvanite, Victor, Bear, Acme, Pacific, Monarch, Shield, Eclipse, Special, American Eagle.)**
Victor—Atlas Powder Co., Wilmington, Del.

FUSES, ELECTRICAL, NON-RENEWABLE.

Buss—Bussman Mfg. Co., St. Louis, Mo.
Economy, Clearsite—Economy Fuse & Mfg. Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.
Trico Fuse Mfg. Co., Milwaukee, Wis. (Trade names —Cleartop, Kantark, Trico.

FUSES, ELECTRICAL, RENEWABLE.

Buss—Bussman Mfg. Co., St. Louis, Mo.
Cote Bros. Mfg. Corp., Chicago, Ill.
Daum—Daum Fuse & Electric Mfg. Co., Pittsburgh, Pa.
Economy, Arklass—Economy Fuse & Mfg. Co., Chicago, Ill.
Federal-National—Federal Electric Co., Chicago, Ill.
Noark—Johns-Pratt Co., Hartford, Conn.
Trico—Trico Fuse Mfg. Co., Milwaukee, Wis.
Union—Chicago Fuse Mfg. Co., Chicago, Ill.

FUSES, PLUG, TIME LIMIT.

Federal—Federal Electric Co., Chicago, Ill.

GAGES, AEROPLANE.

National Gauge & Equipment Co., La Crosse, Wis.
United States Gauge Co., New York, N. Y.

GAGES, ALTITUDE.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Ashton Valve Co., Cambridge, Mass.
Belfield Co., H., Philadelphia, Pa.
Bourdon—New England Steam Gage Co., Niantic, Conn.
Capitol—U. S. Radiator Corp., Detroit, Mich.
Capitol—Capitol Brass Works, Detroit, Mich.
Federal Gauge Co., Chicago, Ill.
Foxboro Co., Inc., The, Foxboro, Mass.
Lonergan—Lonergan, J. E., Co., Philadelphia, Pa.
Marsh Co., Jas. P., Chicago, Ill. (and thermometer combined.)
Mattingly—Mattingly Automatic Valve Co., St. Louis, Mo. (auto. shut-off.)
National Gauge & Equipment Co., La Crosse, Wis.
Penn—Penn Engineering Co., Philadelphia, Pa.
United States Gauge Co., New York, N. Y. (thermometer combined).
Utica Type—New England Steam Gauge Co., Niantic, Conn.

GAGES, AMMONIA.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Ashcroft—The Ashcroft Mfg. Co., New York, N. Y.
Ashton Valve Co., Cambridge, Mass.
Bristol's—Bristol Co., The, Waterbury, Conn.
Cincinnati Refrigerating Machinery Co., Cincinnati, Ohio.
Edson—The Ashcroft Mfg. Co., New York, N. Y.
Ernst Protected Safety—Ernst & Co., Newark, N. J.
Federal Gauge Co., Chicago, Ill.
Foxboro Co., Inc., The, Foxboro, Mass.
Lonergan—Lonergan, J. E., Co., Philadelphia, Pa.
Marsh & Co., Jas. P., Chicago, Ill.
Nason Mfg. Co., New York, N. Y. (automatic liquid.)
National Gauge Co., Brooklyn, N. Y.
Star—Star Brass Mfg. Co., Boston, Mass.
United States Gauge Co., New York, N. Y.

GAGES, AMPLIFYING.

North Side Tool Co., Dayton, Ohio.

GAGES, AUTOMOBILE.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Edelman & Co., E., Chicago, Ill.
Foxboro Co., Inc., The, Foxboro, Mass.
Improved Gauge Mfg. Co., Syracuse, N. Y.
Marsh & Co., Jas. P., Chicago, Ill.
National Gauge & Equipment Co., La Crosse, Wis.
United States Gauge Co., New York, N. Y.

GAGES, BACK, FOR BAND SAW.

Champion—A. E. White Machine Works, Eau Claire, Wis.
Machinery Company of America, Big Rapids, Mich.

GAGES, BIT AND DRILL.

Bonney Forge & Tool Co., Allentown, Pa.
Hargrave—The Cincinnati Tool Co., Cincinnati, O.
Millers Falls Co., Millers Falls, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Stanley Rule & Level Co., New Britain, Conn.
Stearns, E. C., & Co., Syracuse, N. Y.
Syracuse Twist Drill Co., Syracuse, N. Y.

GAGES, BOILER WATER LINE.

Detroit—Detroit Lubricator Co., Detroit, Mich.
Sesure—Sesure Water Gauge Co., New York, N. Y.

GAGES, BRAKE PRESSURE.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Marsh & Co., Jas. P., Chicago, Ill.

United States Gauge Co., New York, N. Y.
Westinghouse—Westinghouse Traction Brake Co., Pittsburgh, Pa.

GAGES, BUTT, FOR HANGING DOORS.

Goodell-Pratt Co., Greenfield, Mass.
Handy—Dikeman Mfg. Co., The, So. Norwalk, Conn
Stearns, E. C. & Co., Syracuse, N. Y.

GAGES, BUTTON.

Starrett Co., The L. S., Athol, Mass.

GAGES, CALIPER.

Brown & Sharpe Mfg. Co., Providence, R. I.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Vulcan—J. H. Williams & Co., Buffalo, N. Y.

GAGES, CAR HEATING, STEAM.

United States Gauge Co., New York, N. Y.

GAGES, CENTER.

Brown & Sharpe Mfg. Co., Providence, R. I.
Goodell-Pratt Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Starrett, L. S., Co., Athol, Mass.
Union Tool Co., Orange, Mass.

GAGES, CHAMFERER.

Bullock Mfg. Associates, Springfield, Mass
Goodell-Pratt Co., Greenfield, Mass.

GAGES, CHEMICAL.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Ashton Valve Co., Cambridge, Mass.
Federal Gauge Co., Chicago, Ill.
Foxboro Co., Inc., The, Foxboro, Mass.
Nason Mfg. Co., New York, N. Y.
United States Gauge Co., New York, N. Y.

GAGES, CIRCUMFERENCE.

Starrett, L. S., Co., The, Athol, Mass.

GAGES, CLAPBOARD.

Goodell-Pratt Co., Greenfield, Mass.
Smith, Otis A., Rockfall, Conn
Stearns—E. C. Stearns & Co., Syracuse, N. Y.

GAGES, COMPOUND.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Federal Gauge Co., Chicago, Ill.
Foxboro Co., Inc., The, Foxboro, Mass.
Lonergan, J. E., Co., Philadelphia, Pa. "Lonergan."
National Gauge & Equipment Co., La Crosse, Wis.
United States Gauge Co., New York, N. Y.

GAGES, COMPRESSOMETER, AUTOMOBILE.

U. S. Standard—United States Gauge Co., New York

GAGES, CRANK CASE.

American Lubricator Co., Detroit, Mich.
National Gauge & Equipment Co., La Crosse, Wis.

GAGES, CYLINDRICAL, PLUG AND RING.

Brown & Sharpe Mfg. Co., Providence, R. I.
G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.

GAGES, DEPTH.

Almond—T. R. Almond Mfg. Co., Ashburnham, Mass.
Goodell-Pratt Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Slocomb—J. T. Slocomb Co., Providence, R. I.
Starrett, L. S., Co., The, Athol, Mass.
Union Tool Co., Orange, Mass.

GAGES, DIAL CYLINDER.

Ames—B. C. Ames Co., Waltham, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp., Providence, R. I.
Starrett, L. S., Co., The, Athol, Mass.
Waltham Dial Gage Co., Waltham, Mass.

GAGES, DIFFERENTIAL PRESSURE.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Bristol Company, The, Waterbury, Conn.

GAGES, DRAFT.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Bailey Meter Company, Cleveland, Ohio.
Bristol's—The Bristol Co., Waterbury, Conn. (recording).

Defender—Defender Automatic Regulator Co., St. Louis, Mo.
Ellison—Lewis M. Ellison, Chicago, Ill.
Foxboro Co., Inc., The, Foxboro, Mass.
Hays Corporation, The, Michigan City, Ind.
Hydro—Bacharach Industrial Instrument Co., Pittsburgh, Pa
Lavigne—Commonwealth Brass Corp., Detroit, Mich.
National Gauge Co., Brooklyn, N. Y.
Moeller, A. E., Brooklyn, N. Y.
Pneumercator—Pneumercator Co., Inc., Brooklyn, N. Y.
Precision Thermometer & Instrument Co., Philadelphia, Pa.
Star—Star Brass Mfg. Co., Boston, Mass.
Tag—C. J. Tagliabue Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Co., Rochester, N. Y.
Uehling Instrument Co., Paterson, N. J.
Westover—American Safety Lamp & Mine Supply Co., Scranton, Pa.

GAGES, DUPLEX PRESSURE.

Ashcroft—Ashcroft Mfg. Co., New York, N. Y.
Ashton Valve Co. Cambridge, Mass.
Foxboro Co., Inc., The, Foxboro, Mass.
Marsh, Jas. P., Co., Chicago, Ill.
U. S.—United States Gauge Co., New York, N. Y.

GAGES, EXPANSION TANK.

(See also "Gages, Water Column")

Capitol—Capitol Brass Works, Detroit, Mich.
Detroit—Detroit Lubricator Co., Detroit, Mich.
General Brass Company, Detroit, Mich.
Roberts Brass Mfg. Co., The, Detroit, Mich.

GAGES, FARM OR TRACTION ENGINE.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Ashcroft—The Ashcroft Mfg. Co., New York, N. Y.
Ashton Valve Co. Cambridge, Mass.
Federal Gauge Company, The, Chicago, Ill.
Foxboro Co., Inc., The, Foxboro, Mass
Lonergan—Lonergan, J. E., Co., Philadelphia, Pa.
Marsh & Co., Jas. P., Chicago, Ill.
United States Gauge Co., New York, N. Y.

GAGES, FEELER.

Goodell-Pratt Co., Greenfield, Mass.
Starrett Co., The L. S., Athol, Mass.

GAGES, FIXED CALIPER.

Rogers, John M., Works, Inc., Gloucester City, N. J.

GAGES, GAS INSPECTORS'.

Federal Gauge Company, The, Chicago, Ill.
Foxboro Co., Inc., The, Foxboro, Mass.
Marsh, Jas. P., Co., Chicago, Ill.
United States Gauge Co., New York, N. Y.

GAGES, HEIGHT.

Brown & Sharpe Mfg. Co., Providence, R. I.
Slocomb—J. T. Slocomb Co., Providence, R. I.
Starrett, L. S., Co., The, Athol, Mass.

GAGES, HUB.

Starrett, L. S., Co., The, Athol, Mass.

GAGES, HYDRAULIC PRESSURE.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Ashcroft Mfg. Co., The, New York, N. Y. "Ashcroft."
Ashton Valve Co. Cambridge, Mass.
Bristol's Co., The, Waterbury, Conn.
Elmes, Chas. F., Engineering Works, Chicago, Ill.
Ernst Protected Safety—Ernst & Co., Newark, N. J
Federal Gauge Co., The, Chicago, Ill.
Foxboro Co., Inc., The, Foxboro, Mass.
Lonergan—Lonergan, J. E., Co., Philadelphia, Pa.
Magee—The Magee Steam Specialty Corp., New York.
Marsh & Co., Jas. P., Chicago, Ill.
National Gauge Co., Brooklyn, N. Y.
R. Dudgeon—Richard Dudgeon, New York, N. Y.
Star Brass Mfg. Co., Boston, Mass. "Star."
United States Gauge Co., New York, N. Y. (brass jacketed.)
Watson-Stillman Co., The, New York, N. Y.

GAGES, HYDROSTATIC, RECORDING AND INDICATING.

Krasberg Engineering & Mfg. Corp., Chicago, Ill.

GAGES, INSIDE CALIPER.

Starrett Co., The L. S., Athol, Mass.
Taylor-Shantz Co., Rochester, N. Y.

GAGES, LENGTH.

Krasberg Engineering & Mfg. Corp., Chicago, Ill.

GAGES, LIMIT.

American—American Gage Co., Newark, N. J.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cleveland Twist Drill Co., Cleveland, O.
Little Giant—Greenfield Tap & Die Corp., Greenfield, Mass.
Syracuse—Meldrum - Gabrielson Corp., Syracuse, N. Y.
Williams, J. H., & Co., Buffalo, N. Y.

GAGES, LIQUID LEVEL RECORDING.

Bristol's—The Bristol Co., Waterbury, Conn.
Foxboro Co., Inc., The, Foxboro, Mass.
Lunkenheimer Co., The, Cincinnati, O.
Mattingly—Mattingly Automatic Valve Co., St. Louis, Mo. (auto. shut-off).
Parks Engineering Co., Philadelphia, Pa.
Pittsburgh Gage & Supply Co. Pittsburgh, Pa.

GAGES, LOCATION.

Krasberg Engineering & Mfg. Corp., Chicago, Ill.

GAGES, LOCOMOTIVE AND INTERURBAN CAR.

Ashcroft Mfg. Co., The, New York.
Federal Gauge Co., Chicago, Ill.
United States Gauge Co., New York, N. Y.

GAGES, LOSS OF HEAD AND RATE OF FLOW.

Simplex—Simplex Valve & Meter Co., Philadelphia, Pa.

GAGES, LUMBER.

Filer & Stowell Co., Milwaukee, Wis.
Lufkin Rule Co., The, Saginaw, Mich.

GAGES, MARKING.

Chapin-Stephens Co., The., Pine Meadow, Conn.
Disston & Sons Co., Henry, Philadelphia, Pa.
Johnson's—E. P. Johnson Rule Mfg. Co., Chicago, Ill
Stanley Rule & Level Co., New Britain, Conn.
Stearns, E. C., & Co., Syracuse, N. Y.

GAGES, MERCURY AND SIPHON.

Adsco—American District Steam Co., North Tonawanda, N. Y.
American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Clark—H. W. Clark Co., Mattoon, Ill.
Farnan—Farnan Brass Works, Cleveland, O. (test)
Feather Mercury Gauge Mfg. Co., Bloomfield, N. J.
Foxboro Co., Inc., The, Foxboro, Mass.
Knapp Mfg. & Supply Co., The, New York, N. Y.
Lonergan—J. E. Lonergan Co., Philadelphia, Pa.
Monarch Engineering & Mfg. Co., The, Baltimore Md.
National Gauge Co., Brooklyn, N. Y.
Parks, Harry S., Co., Philadelphia, Pa.
Princo—Precision Thermometer & Instrument Co. Philadelphia, Pa.
Rado Co., The, Milwaukee, Wis.
Tag—C. J. Tagliabue Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Co., Rochester, N. Y.

GAGES, MICROMETER CALIPER.

Ames & Co., B. C., Waltham, Mass.
Athol Machine Co., Athol, Mass.
Brown & Sharp Mfg. Co., Providence, R. I.
Goodell-Pratt Co., Greenfield, Mass.
Haines—Haines Gauge Co., The, Philadelphia, Pa.
Little Giant—Greenfield Tap & Die Corp., Greenfield, Mass.
Slocomb—J. T. Slocomb Co., Providence, R. I.
Starrett Co., The L. S., Athol, Mass.

GAGES, MOLDERS'.

Jones, W. E., Rochester, N. Y.

GAGES, NON-FREEZING AND NON-VIBRATING.

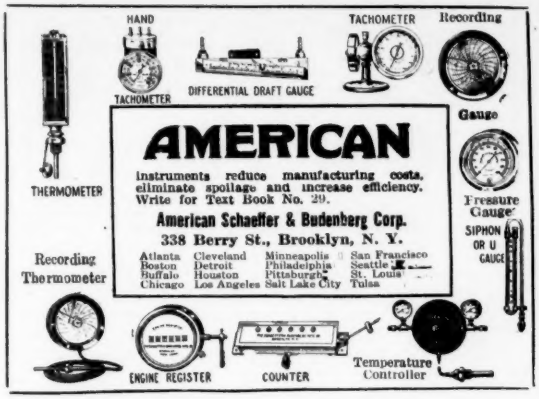
United States Gauge Co., New York, N. Y.

GAGES, OIL LEVEL, FOR DYNAMOS.

General Brass Company, Detroit, Mich.

GAGES, OIL, SIGHT FEED.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
American—American Lubricator Co., Detroit, Mich
Billow—National Supply Co., Chicago.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
General Brass Company, Detroit, Mich.
Hall Mfg. Co., Harrison, N. J.
J. E. Lonergan Co., Philadelphia, Pa. "Lonergan."
Lunkenheimer Co., Cincinnati, O.
National Brass Mfg. Co., Rochester, N. Y.
National Gauge & Equipment Co., La Crosse, Wis.
Powell, Wm., Co., The, Cincinnati, O.
Richardson-Phenix Co., Milwaukee, Wis.



Sherwood Mfg. Co., Buffalo, N. Y.
Triplex—The Lunkenheimer Co., Cincinnati, O.
United States Gauge Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, O.

GAGES, OUNCE, GRADUATED.

Federal Gauge Company, The, Chicago, Ill.
Marsh & Co., Jas. P., Chicago, Ill.

GAGES, OVERFLOW.

Hancock Mfg. Co., Charlotte, Mich.
Northern Tool Co., The, Utica, N. Y.

GAGES, OXYGEN, ACETYLENE AND HYDROGEN

Marsh, Jas. P., & Co., Chicago, Ill.
Mattingly Automatic Valve Co., St. Louis, Mo. (automatic shut-off).
Meco—Modern Engineering Co., St. Louis, Mo.
Milburn, Alexander Co., The, Baltimore, Md.
National Gauge & Equipment Co., LaCrosse, Wis.
Torchweld Equipment Co., Chicago, Ill.
United States Gauge Co., New York, N. Y.

GAGES, PIEZOMETER.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.

GAGES, PLANE.

Goodell-Pratt Co., Greenfield, Mass.
Stearns & Co., E. C., Syracuse, N. Y.

GAGES, PLANER.

Goodell-Pratt Co., Greenfield, Mass.
Starrett Co., The L. S., Athol, Mass.

GAGES, PLUG.

Brown & Sharpe Mfg. Co., Providence, R. I.
Cleveland Twist Drill Co., Cleveland, O.
Clough, R. M., Tolland, Conn.
Coats-Leonard—Coats Machine Tool Co., Inc., New York, N. Y.
G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.
Gardam & Son, Wm., Inc., New York, N. Y.
Hanson Process—Hanson-Whitney Machine Co., Hartford, Conn.
Harris—Harris Engineering Co., Bridgeport, Conn.
Morse Twist Drill & Machine Co., New Bedford, Mass.
National Tool Co., Inc., New York, N. Y.
Standard Gage Co., Inc., Poughkeepsie, N. Y.
Taft-Pierce Mfg. Co., Woonsocket, R. I.

GAGES, PRESSURE, AIR, GAS, OIL, STEAM AND WATER.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Ashcroft—The Ashcroft Mfg. Co., New York.
Ashton Valve Co., The, Cambridge, Mass.
Bacharach Industrial Instrument Co., Pittsburgh, Pa.
Bailey Meter Co., Cleveland, Ohio.
Bernz, Otto Co., Newark, N. J.
Belfield, H., Co., Philadelphia, Pa.
Bristol's—Bristol Co., The, Waterbury, Conn. (recording).
Brunner—Brunner Mfg. Co., Utica, N. Y.
Capitol—U. S. Radiator Corp., Boston, Mass.
Capitol—Capitol Brass Works, Detroit, Mich.
Chicago—The Ohio Injector Co., Wadsworth, O.
Cleveland Steam Gauge Co., Cleveland, O.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Edelman, E., & Co., Chicago, Ill.

Edson—The Ashcroft Mfg. Co., New York, N. Y.
Ernst & Co., Newark, N. J.
Federal Gauge Co., Chicago, Ill.
Foxboro Differential—The Foxboro Co., Inc., Foxboro, Mass.
General Brass Company, Detroit, Mich.
Gorton—Gorton & Lidgerwood Co., New York, N. Y.
Improved Gage Mfg. Co., Syracuse, N. Y. "Pressurite."
Knapp Mfg. & Supply Co., The, New York, N. Y.
Lonergan—J. E. Lonergan Co., Philadelphia, Pa.
Loomis, A. O., Larimer, Pa. "Loomis."
Marsh & Co., Jas. P., Chicago, Ill.
National Gauge Co., Brooklyn, N. Y.
National Gauge & Equipment Co., La Crosse, Wis.
New England Steam Gauge Co., Niantic, Conn.
Parks, Harry S., Co., Philadelphia, Pa.
Penn—The Penn Engineering Co., Philadelphia, Pa.
Roberts Brass Mfg. Co., Detroit, Mich.
Sarco—The Sarco Co., Inc., New York, N. Y.
Star—Star Brass Mfg. Co., Boston, Mass.
Tag—C. J. Tagliabue Mfg. Co., Brooklyn, N. Y.
Taylor Instrument Companies, Rochester, N. Y. "H. & M. Type."
Trane Company, The, LaCrosse, Wis.
Triton—U. S. Radiator Corp., Detroit, Mich.
U. S. Standard—United States Gauge Co., New York.

GAGES, PRESSURE, COMPOUND.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Ashcroft—The Ashcroft Mfg. Co., New York, N. Y.
Ashton Valve Co., Cambridge, Mass.
Federal Gauge Company, The, Chicago, Ill.
Marsh, Jas. P., Co., Chicago, Ill.
National Gauge & Equipment Co., La Crosse, Wis.
United States Gauge Co., New York, N. Y.

GAGES, PRESSURE, ELECTRICAL ALARM.

Bristol's—Bristol Co., The, Waterbury, Conn.
Federal Gauge Co., Chicago, Ill.
Marsh, Jas. P., & Co., Chicago, Ill.
U. S.—United States Gauge Co., New York, N. Y.

GAGES, PRESSURE, ILLUMINATED DIAL.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Ashton Valve Co., Cambridge, Mass.
Federal Gauge Co., Chicago, Ill.
Foxboro Co., Inc., The, Foxboro, Mass.
Marsh & Co., Jas. P., Chicago, Ill.
United States Gauge Co., New York, N. Y.

GAGES, PRESSURE, LOCOMOTIVE.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Ashcroft—Ashcroft Mfg. Co., New York, N. Y.
Ashton Valve Co., Cambridge, Mass.
Ernst Protected Safety—Ernst & Co., Newark, N. J.
Federal Gauge Co., Chicago, Ill.
Foxboro Co., Inc., The, Foxboro, Mass.
General Brass Company, Detroit, Mich.
Lonergan—J. E. Lonergan Co., Philadelphia, Pa.
Marsh & Co., Jas. P., Chicago, Ill.
New England Steam Gauge Co., Niantic, Conn.
United States Gauge Co., New York, N. Y.

GAGES, PRESSURE, RESETTING.

United States Gauge Co., New York.

GAGES, PRESSURE AND VACUUM, INDICATING AND RECORDING.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Ashcroft—The Ashcroft Mfg. Co., New York, N. Y
Ashton Valve Co., Cambridge, Mass.
Bristol's—Bristol Co., The, Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.
Capitol—Capitol Brass Works, Detroit, Mich.
Defender—Defender Automatic Regulator Co., St Louis, Mo.
Edson—The Ashcroft Mfg. Co., New York, N. Y.
Federal Gauge Co., Chicago, Ill.
Foxboro Co., Inc., The, Foxboro, Mass.
General Brass Company, Detroit, Mich.
Hydro—Bacharach Industrial Instrument Co., Pittsburgh, Pa.
Koven, L. O., & Bros., Jersey City, N. J.
Lunkenheimer Co., Cincinnati, O.
Marsh & Co., Jas. P., Chicago, Ill.
Moeller, A. E., Brooklyn, N. Y.
National Gauge Co., Brooklyn, N. Y.
New England Steam Gauge Co., Niantic, Conn.
O. E. Specialty Mfg. Co., Milwaukee, Wis.
Pneumercator—Pneumercator Co., Inc., Brooklyn, N. Y.
Precision—McDonough Coal Saving Corporation, Detroit, Mich.
Resistoil—Brunner Mfg. Co., Utica, N. Y.
Star—Star Brass Mfg. Co., Boston, Mass.
Tag—C. J. Tagliabue Mfg. Co., Brooklyn, N. Y.
Uehling Instrument Co., Paterson, N. J.
United States Gauge Co., New York, N. Y.

GAGES, PROFILE.

Harris—Harris Engineering Co., Bridgeport, Conn.

GAGES, PYROMETER.

Ashton Valve Co., Cambridge, Mass.
Bristol's—Bristol Co., The, Waterbury, Conn.
Foxboro Co., Inc., The, Foxboro, Mass.
Marsh & Co., Jas. P., Chicago, Ill.
Star Brass Mfg. Co., Boston, Mass.
United States Gauge Co., New York, N. Y.

GAGES, RACK, PINION AND GEAR TOOTH.

Boston Gear Works, Norfolk Downs, Mass.
Klein-Logan Co., The, Pittsburgh, Pa.

GAGES, RADIUS.

Krasberg Engineering & Mfg. Corp., Chicago, Ill.
Starrett Co., The L. S., Athol, Mass.

GAGES, REFERENCE.

Standard Gage Co., Inc., Poughkeepsie, N. Y.

GAGES, RETARD.

Ashcroft—Ashcroft Mfg. Co., New York, N. Y.
Federal Gauge Company, The, Chicago, Ill.
National Gauge & Equipment Co., La Crosse, Wis.
U. S.—United States Gauge Co., New York, N. Y.

GAGES, RING.

G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.
Harris—Harris Engineering Co., Bridgeport, Conn.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Nelson Tool Co., Inc., New York, N. Y.
Standard Gage Co., Poughkeepsie, N. Y.

GAGES, ROLLER AND ROLLING MILL.

Brown & Sharpe Mfg. Co., Providence, R. I.
Dexter—The Leavitt Machine Co., Orange, Mass.
Goodell-Pratt Co., Greenfield, Mass.
Haines Gauge Co., Philadelphia, Pa.

GAGES, SAW.

Disston, Henry, & Sons Co., Philadelphia, Pa.
Hoe, R., & Co., New York, N. Y.
Ohio-Dayton—Ohio-Dayton Saw Gauge Co., Dayton, Ohio.
Tannewitz Works, The, Grand Rapids, Mich.
Widemire—Machinery Company of America, Big Rapids, Mich.

GAGES, SCRATCH.

Billings & Spencer Co., The, Hartford, Conn.
Goodell-Pratt Co., Greenfield, Mass.
Starrett Co., The L. S., Athol, Mass.

GAGES, SCREW PITCH OR THREAD.

Almond—T. R. Almond Mfg. Co., Ashburnham, Mass.
Bath, John, & Co., Worcester, Mass.
Bicknell-Thomas Co., Greenfield, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Gardam, Wm. & Son, Inc., New York.
Goddard & Goddard Co., Chicago, Ill.
Goodell-Pratt Co., Greenfield, Mass.
G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass. (plug and ring).
Hanson-Whitney Machine Co., Hartford, Conn.
John-Sons Gage Works, Hartford, Conn.
Krasberg Engineering & Mfg. Co., Chicago, Ill.
Landis Machine Co., Waynesboro, Pa.
Morse Twist Drill & Machine Co., New Bedford Mass.
Rogers, John M., Works, Inc., Gloucester City, N. J.
Starrett Co., The L. S., Athol, Mass.
Superior Thread Gauge Mfg. Co., Brooklyn, N. Y.
Taft Pierce Mfg. Co., Woonsocket, R. I.
West & Dodge Co., Boston, Mass.

GAGES, SNAP.

American—American Gage Co., Newark, N. J.
Billings & Spencer Co., The, Hartford, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I.
Gardam, Wm. & Son, Inc., New York, N. Y.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hanson-Whitney Machine Co., The, Hartford, Conn.
Harris—Harris Engineering Co., Bridgeport, Conn.
John-Sons Gage Works, Hartford, Conn.
Nelson Tool Company, Inc., New York.
Standard Gage Co., Inc., Poughkeepsie, N. Y.
Taft-Pierce Mfg. Co., Woonsocket, R. I.

GAGES, STAIR.

Goodell-Pratt Co., Greenfield, Mass.
Starrett Co., The L. S., Athol, Mass.

GAGES, STANDARD.

Morse Twist Drill & Machine Co., New Bedford, Mass.
Standard Gauge Co., Inc., Poughkeepsie, N. Y.

GAGES, STOCK, ROUND.

Federal Products Corp., Providence, R. I.

GAGES, SULPHITE.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Foxboro Co., Inc., The, Foxboro, Mass.

GAGES, SURFACE.

Billings & Spencer Co., Hartford, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I.
Clark—H. W. Clark Co., Mattoon, Ill.
Goodell-Pratt Co., Greenfield, Mass.
Hoggson & Pettis Mfg. Co., New Haven, Conn.
Starrett Co., The L. S., Athol, Mass.
Union Tool Co., Orange, Mass.
Universal—The Schellenbach-Hunt Tool Co., Cincinnati, O.

GAGES, SWING SAW, AUTOMATIC.

B. T. & B.—Machinery Company of America, Big Rapids, Mich.
Champion—Woodworkers Tool Works, Chicago, Ill.
Disston, Henry, & Sons, Inc., Philadelphia, Pa.
Freeport Truck & Clamp Co., Freeport, Mich.
Tannewitz Works, Grand Rapids, Mich.

GAGES, TANK, INDICATING.

Caldwell, W. E., Co., Louisville, Ky.

GAGES, TAPER & TELESCOPING.

Hartford—Hartford Special Machinery Co., Hartford, Conn.
Starrett Co., The L. S., Athol, Mass.

GAGES, TENSION, BAND SAW.

Armstrong Mfg. Co., Portland, Ore.
Disston, Henry, & Sons Co., Philadelphia, Pa.

GAGES, TEST.

(See also "Gages, Mercury," and "Gages, Pressure and Vacuum.")

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Ashcroft—The Ashcroft Mfg. Co., New York, N. Y.
Ashton Valve Co., Cambridge, Mass.
Federal Gauge Co., Chicago, Ill.
Foxboro Co., Inc., The, Foxboro, Mass.
Lonergan—J. E. Lonergan Co., Philadelphia, Pa.
Marsh & Co., Jas. P., Chicago, Ill.
New England Steam Gauge Co., Niantic, Conn.
Star—Star Brass Mfg. Co., Boston, Mass.
United States Gauge Co., New York, N. Y.

GAGES, THICKNESS.

Almond—T. R. Almond Mfg. Co., Ashburnham, Mass.
B. C. Ames & Co., Waltham, Mass. "Ames."
Ashcroft—Ashcroft Mfg. Co., New York, N. Y.
Brown & Sharpe Mfg. Co., Providence, R. I.
Federal Products Corp., Providence, R. I.
Goodell-Pratt Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Starrett Co., The L. S., Athol, Mass.
Union Tool Co., Orange, Mass.

GAGES, TIRE, PNEUMATIC.

Foxboro Co., Inc., The, Foxboro, Mass.
Improved Gauge Mfg. Co., Syracuse, N. Y.
National Gauge & Equipment Co., La Crosse, Wis.
Schrader Universal—A. Schrader's Son, Inc., Brooklyn, N. Y.
United States Gauge Co., New York, N. Y.

GAGES, TOLERANCE.

Standard Gage Co., Inc., Poughkeepsie, N. Y.

GAGES, TRACK.

Buda Co., Chicago, Ill.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Huntington—Aldon Company, The., Chicago, Ill.
Huntington—Iron City Tool Works, Pittsburgh, Pa.
Kalamazoo—Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Leetonia Tool Co., The, Leetonia, O. (mine)
Richardson & Tallman, Shelbyville, Ill.
Verona—Verona Tool Works, Pittsburg, Pa.

GAGES, TRIPLEX.

Ashton Valve Co., Cambridge, Mass.
Foxboro Co., Inc., The, Foxboro, Mass.

GAGES, URN.

General Brass Company, Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Richardson, Edro, Brass Co., Baltimore, Md.

GAGES, VACUUM, INDICATING AND RECORDING.

(See Gages, Pressure, Vacuum, Indicating and Recording.)

Safety Water Columns
Gauge Cocks
Water Gauges

Seamless Copper Floats

Reliance

Reliance Gauge Column Co., 5910 Carnegie Ave., Cleveland

GAGES, WATER, QUICK CLOSING.

General Brass Company, Detroit, Mich.
Keckley, O. C., Company, Chicago, Ill. "S. S. P."
P. B. H.—The Paul B. Huyette Co., Inc., Philadelphia, Pa.
Nason Mfg. Co., New York, N. Y.
Reliance—The Reliance Gauge Column Co., Cleveland, O.
Rich Mfg. Co., Boston, Mass.
S. S. P.—S. S. P. Manufacturing Co., Chicago, Ill.

GAGES, WATER COLUMN.

(See also "Columns, Water.")

Alexander—Marion Machine Foundry & Supply Co., Marion, Ind.
American—American Injector Co., Detroit, Mich.
American Lubricator Co., Detroit, Mich.
American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Ashton Valve Co., Cambridge, Mass.
Belknap Mfg. Co., The, Bridgeport, Conn.
Boiler Room Improvement Co., Chicago, Ill. "McNeill."
Bordo—L. J. Bordo, Philadelphia, Pa.
Buckeye Iron & Brass Works, Dayton, O.
Burrows—F. A. Burrows Mfg. Co., York, Pa.
Capitol—Capitol Brass Works, Detroit, Mich.
Chicago—The Ohio Injector Co., Wadsworth, O.
Cochrane, J. A., Brass Mfg. Co., Cleveland, O.
Defender Automatic Regulator Co., St. Louis, Mo.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Eastwood Wire Mfg. Co., Belleville, N. J.
Edna Brass Mfg. Co., The, Cincinnati, O. (reflex).
Eureka—Star Brass Mfg. Co., Boston, Mass.
Farnan—Farnan Brass Works, Cleveland, O.
Firth—Tranter Mfg. Co., Pittsburg, Pa.
General Brass Company, Detroit, Mich.
Golden-Anderson Valve Specialty Co., Pittsburgh, Pa. "Golden."
Gurley—W. & L. E. Gurley, Troy, N. Y.
Haydenville Co., The, Haydenville, Mass.
Jerguson—Jerguson Gage & Valve Co., Somerville, Mass.
Klinger—Klingerit, Inc., New York, N. Y. (reflex.)
Lonergan, J. E., Co., Philadelphia, Pa. "Lonergan."
Lunkenheimer Co., Cincinnati, O. Trade names—Automatic, Plain.
Nathan Mfg. Co., New York. (Trade names—Delco, Klinger, Nathan.)
Navy—Penberthy Injector Co., Detroit, Mich. (automatic and non-automatic).
P. B. H.—The Paul B. Huyette Co., Philadelphia, Pa.
Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
Pneumercator—Pneumercator Co., Inc., Brooklyn, N. Y. (distant).
Powell Co., The Wm., Cincinnati, O.
Princo—Precision Thermometer & Instrument Co., Philadelphia, Pa.
Reading Steel Casting Co., Bridgeport, Conn.
Reliance—The Reliance Gauge Column Co., Cleveland, O.
Roberts Brass Mfg. Co., The, Detroit, Mich.
S. S. P.—S. S. P. Manufacturing Co., Chicago, Ill.
Safeguard—Penberthy Injector Co., Detroit, Mich. (automatic and non-automatic).
Simplex—Simplex Valve & Meter Co., Philadelphia, Pa.
Star—Star Brass Mfg. Co., Boston, Mass.
Sterling & Skinner Mfg. Co., The, Detroit, Mich.
Stulp—Fred. J. Stulp, Muskegon, Mich.
Swift—The Swift Lubricator Co., Elmira, N. Y.
Walworth Company, Boston, Mass.
Williams—The Williams Gauge Co., Pittsburg, Pa.
Williams—The D. T. Williams Valve Co., Cincinnati, O.
Wright-Austin Co., Detroit, Mich.

GAGES, WATER COLUMN, ALL IRON.

Nason Mfg. Co., New York, N. Y.

GAGES, WATER COLUMN, SAFETY.

American—American Injector Co., Detroit, Mich.
American Schaeffer & Budenberg Corp., Brooklyn

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N. Y.
Ashcroft—The Ashcroft Mfg. Co., New York, N. Y.
Delco—American Safety Lamp & Mine Supply Co. Scranton, Pa.
"Ernst Nonbreakable" Protected Safety—Ernst & Co., Newark, N. J.
Foxboro Co., Inc., The, Foxboro, Mass.
General Brass Company, Detroit, Mich.
Jenkins Bros., New York, N. Y.
Lonergan—J. E. Lonergan Co., Philadelphia, Pa.
Mattingly—Mattingly Automatic Valve Co., St. Louis, Mo.
Nason Mfg. Co., New York, N. Y.
The Northern—Northern Tool Co., Inc., Utica, N. Y.
Penberthy Injector Co., Detroit, Mich.
Pittsburgh—Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
Reliance—The Reliance Gauge Column Co., Cleveland, O.
Rich Mfg. Co., Boston, Mass.
Roberts Steam Specialty Co., Cleveland, O.
Safeguard—Penberthy Injector Co., Detroit, Mich.
Sargent Company, Chicago, Ill.
S. S. P. Manufacturing Co., Chicago, Ill. "S. S. P."
Stulp Fred J., Muskegon, Mich.
Swartwout—The Swartwout Co., Cleveland, O.
Wright-Austin Co., Detroit, Mich.

GAGES, WATER PRESSURE, PLUMBERS'.

Stack Heater Co., Boston, Mass.

GAGES, WATERWORKS.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Ashcroft Mfg. Co., New York, N. Y.
Bristol's—The Bristol Co., Waterbury, Conn.
Foxboro Co., Inc., The, Foxboro, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Marsh & Co., Jas. P., Chicago, Ill.
Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
Sonofone—H. W. Clark Co., Mattoon, Ill.
Star Brass Mfg. Co., Boston, Mass.
United States Gauge Co., New York, N. Y.

GAGES, WIRE.

Atkins, E. C., & Co., Indianapolis, Ind.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cleveland Twist Drill Co., Cleveland, O.
Disston & Sons, Inc., Henry, Philadelphia, Pa.
Peck, Stow & Wilcox Co., Southington, Conn.
Starrett Co., The L. S., Athol, Mass.

GALVANOMETERS.

Atlas Powder Co., Wilmington, Del.
Du Pont—E. I. du Pont de Nemours & Co., Wilmington, Del.
General Electric Co., Schenectady, N. Y.
Hercules Powder Co., Wilmington, Del.
Weston Electrical Instrument Co., Newark, N. J. "Weston."

GARAGE EQUIPMENT, REPAIR.

Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Continental Auto Parts Co., Columbus, Ind.
Manley—The Manley Mfg. Co., York, Pa.
Stewart—Chicago Flexible Shaft Co., Chicago, Ill.
Weaver—Weaver Mfg. Co., Springfield, Ill.

GAS, ACETYLENE, IN CYLINDERS.

Commercial—Commercial Acetylene Supply Co., The, New York, N. Y.
Prest-O-Lite—Prest-O-Lite Co., Inc., Indianapolis, Ind.

GAS, LIQUID, IN TANKS.

Blaugas—Northwestern Blau-Gas Company, St. Paul, Minn.

GAS SAVERS FOR ELECTRIC OUTFITS.

Gasaver—Weldit Acetylene Co., Detroit, Mich.

GASKETS, AMMONIA.

Akron Metallic Gasket Co., Akron, O.
L. J. Barwood Mfg. Co., The, Stoneham, Mass. "Barwood."
Flexitallic Gasket Co., Camden, N. J. "Flexitallic."
Goetze Gasket & Packing Co., New Brunswick, N. J.
Guillott Metal Gasket & Supply Co., Chicago, Ill.
Indestructible—U. S. Indestructible Gasket Co., Brooklyn, N. Y.
Jenkins 96—Jenkins Bros., New York, N. Y.
McCord Radiator Mfg. Co., Detroit, Mich.
Mechanical Rubber Co., The, Cleveland, Ohio.
Metallo Gasket Co., New Brunswick, N. J.
Phoenix Specialty Mfg. Co., New York.
Quaker City Rubber Co., Philadelphia, Pa.
Standard Mfg. & Supply Co., Philadelphia, Pa.
Self-Sealing—Chicago-Wilcox Mfg. Co., Chicago, Ill.
United States Rubber Co., New York, N. Y.
Western Packing & Supply Co., Chicago, Ill.

GASKETS, ASBESTOS-METALLIC.

Adams & Allen, Ft. Worth, Tex.
Adkins, Young & Allen Co., Chicago, Ill. (Trade names—Artesian, Semibronze.)
Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Akron Metallic Gasket Co., Akron, O. (Trade names—Akron, Akro-Metal, Summit.)
Algco—Auburn Leather Goods Co., Hartford, Conn.
Allen, W. D., Mfg. Co., Chicago, Ill.
American Gasket Co., Milwaukee, Wis.
Anco—Chicago-Wilcox Mfg. Co., Chicago, Ill.
Asbesteel—Faul & Timmins, Buffalo, N. Y.
Asbestos Fibre Spinning Co., North Wales, Pa.
Asbestos Materials Corp., Millington, N. J.
Asbestos Textile Co., Inc., New York, N. Y.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Bestallic—The Advance Packing & Supply Co., Chicago, Ill.
B & P.-New York Belting & Packing Co., New York, N. Y.
Braiding & Packing Works of America, Inc., Brooklyn, N. Y.
Cincinnati Rubber Mfg. Co., Cincinnati, O.
Clinton—Clinton Mfg. Co., Brooklyn, N. Y.
Common Sense—Phoenix Specialty Mfg. Co., New York, N. Y.
Consolidated—Consolidated Packing & Supply Co., New York, N. Y.
Darcoid Company, The, New York, N. Y.
Double Diamond—New York Belting & Packing Co., New York, N. Y.
Duraco—United States Asbestos Co. of Illinois, Chicago, Ill.
Eastern Asbestos Co., Providence, R. I.
Elkhart Rubber Works, Elkhart, Ind.
Essex—Essex Rubber Co., Trenton, N. J.
Ferodo & Asbestos, Inc., New Brunswick, N. J.
Fieldco—R. B. Field & Co., Worcester, Mass.
Flexitallic—Fred Y. Nichols, Chicago, Ill.
Flexitallic—Flexitallic Gasket Co., Philadelphia, Pa.
France Packing Company, The, Philadelphia, Penna.
Garlock—The Garlock Packing Co., Palmyra, N. Y.
General Asbestos & Rubber Co., Charleston, S. C. (Trade names—Garco, Ideal, Reinforced, Semibronze.)
Gladiator—New Jersey Asbestos Co., New York, N. Y.

Goetze Gasket & Packing Co., New Brunswick, N. J. (Trade names—Devo, Goetze, Triumph, Goetzerit.)
Goodyear Tire & Rubber Co., Akron, O.
Hart—Hart Packing Co., Boston, Mass.
Helios—Crandall Packing Co., Palmyra, N. Y.
Indestructible—U. S. Indestructible Gasket Co., Brooklyn, N. Y. (Goetz Pattern).
Janos Asbestos Co., New York, N. Y.
Jenkins—Jenkins Bros., New York, N. Y.
Johnson's—The Henry Johnson Co., Jersey City, N. J.
Johns-Manville Corporation, New York, N. Y. "Kearsarge," "Liberty," "Mobilene."
Klingerit—Klingerit, Inc., New York, N. Y.
Lone Rock—The Wm. L. McLellan Co., Bridgeport, Conn.
Lubron—The Lubron Co., Everett, Mass.
McKim—McCord Radiator Mfg. Co., Detroit, Mich.
Mechanical Rubber Co., The, Cleveland, Ohio.
Metallo Gasket Co., New Brunswick, N. J. (Trade names—Bethany, Metallo, Oxford, Stanite.)
Morgan Mfg. Co., Inc., Keene, N. H.
Never-Leak—Fitzgerald Mfg. Co., The, Torrington, Conn.
Phoenix Specialty Mfg. Co., New York, N. Y.
Pilley's—Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Rhinoceros—Keasbey & Mattison Co., Ambler, Pa.
Right—Gasket Supply Co., Philadelphia, Pa.
Smooth-On—Smooth-On Mfg. Co., Jersey City, N. J.
Spider—New York Belting & Packing Co., New York, N. Y.
Summit—Akron Metallic Gasket Co., Akron, O.
Triple—Cincinnati Gasket & Packing Co., Cincinnati, O.
Union Rubber & Asbestos Co., Trenton, N. J.
United States Rubber Co., New York.
Universal Gasket & Mfg. Co., Chicago, Ill.
Usaco—United States Asbestos Co., Manheim, Pa.
Victor (copper asbestos)—Victor Mfg. & Gasket Co. Chicago, Ill.
Watson Co., H. F., Erie, Pa.
Wearwell, Longwear—Wearwell Gasket & Packing Co., Camden, N. J.
Western Packing & Supply Co., Chicago, Ill.

GASKETS, BOILER TUBE.

Advance Packing & Supply Co., Chicago, Ill.
Akron Metallic Gasket Co., Akron, O.
Asbesteel—Faul & Timmins, Buffalo, N. Y.
Asbestos Fibre Spinning Co., North Wales, Pa.
Canfield—H. O. Canfield Co., Bridgeport, Conn.
Chicago-Wilcox Mfg. Co., Chicago, Ill.
Cincinnati Gasket & Packing Co., Cincinnati, O.
Diamond Rubber Co., Inc., Akron, O.
Double Service Packing Co., Philadelphia, Pa.
Ebonite—Quaker City Rubber Co., Philadelphia, Pa.
Flexitallic—Flexitallic Gasket Co., Camden, N. J.
G. W. K.—Geo. W. Knowlton Rubber Co., Boston, Mass.
General Asbestos & Rubber Co., Charleston, S. C.
Indestructible—U. S. Indestructible Gasket Co., Brooklyn, N. Y.
Janos Asbestos Co., New York, N. Y.
Jenkins 96—Jenkins Bros., New York, N. Y.
McCord Radiator Mfg. Co., Detroit, Mich.
Mechanical Rubber Co., The, Cleveland, Ohio.
Metallo Gasket Co., New Brunswick, N. J.
Standard Gasket Co., Philadelphia, Pa.
Union Rubber & Asbestos Co., Trenton, N. J.
United States Rubber Co., New York, N. Y.
Western Packing & Supply Co., Chicago, Ill.

GASKETS, BRASS, BRONZE, COPPER, LEAD, STEEL AND OTHER METALS.

American District Steam Co., North Tonawanda, N. Y.
Akron Metallic Gasket Co., Akron, O. (Trade names—Akro-Metal, Akron, Akron Gunmetal, Duplex.)
Barwood—The L. J. Barwood Mfg. Co., Stoneham, Mass.
Beaton & Cadwell Mfg. Co., New Britain, Conn.
Belmont Packing & Supply Co., Philadelphia, Pa.
Best—Best Co., Pittsburgh, Pa.
Durametallic—Durametallic Corp., Kalamazoo, Mich.
Eagle Brand—Taunton-New Bedford Copper Co., Taunton, Mass.
Faul & Timmins, Buffalo, N. Y.
France Packing Company, The, Philadelphia, Penna.
Goetze Gasket & Packing Co., New Brunswick, N. J. (Trade names—Brunswick (corrugated with asbestos), Devo, Triumph.)
Guillott Metal Gasket & Supply Co., Chicago, Ill.
Hussey, C. G., & Co., Pittsburgh, Pa.
Knight, H. W., & Son, Seneca Falls, N. Y.
Magee Steam Specialty Corp., New York, N. Y.
McCord Radiator Mfg. Co., Detroit, Mich.
Metallo Gasket Co., New Brunswick, N. J. (Trade names—Metallo, Bethany, Oxford.)
Never-Leak—Fitzgerald Mfg. Co., Torrington, Conn.
Phoenix Specialty Mfg. Co., New York, N. Y.
Right—Gasket Supply Co., Philadelphia, Pa.
Smooth-On Mfg. Co., Jersey City, N. J.
United States Indestructible Gasket Co., Brooklyn, N. Y. (Trade names—Indestructible, Pneumetalastic.)
United States Mineral Wool Co., New York, N. Y.
Universal Gasket & Mfg. Co., Chicago, Ill.
Victor—Victor Manufacturing & Gasket Co., Chicago, Ill.
Western Packing & Supply Co., Chicago, Ill.
Wilcox—Chicago-Wilcox Mfg. Co., Chicago, Ill. (Self-sealing.)
Windsor Mfg. Co., Milwaukee, Wis.

GASKETS, CLOSET, FLOOR.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Canfield, H. O., Co., The, Bridgeport, Conn.
Canfield Rubber Co., The, Bridgeport, Conn.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
Double Service Packing Co., Philadelphia, Pa.
Gasket Supply Co., Philadelphia, Pa.
General Asbestos & Rubber Co., Charleston, S. C.
Goodrich, B. F., Rubber Co., Akron, O.
Groeniger Mfg. Co., Columbus, O.
Phoenix Specialty Mfg. Co., New York, N. Y.
Republic Rubber Co., The, Youngstown, O.
Rockford Leather Washer Co., Rockford, Ill.
United States Asbestos Co., Manheim, Pa.
Western Packing & Supply Co., Chicago, Ill.
Woodward-Wanger Co., Philadelphia, Pa.

GASKETS, CORK.

Acco—Armstrong Cork Co., Pittsburgh, Pa.
Advance Felt & Cutting Co., Chicago, Ill.
Akron Metallic Gasket Co., Chicago, Ill.
Corker—Goetze Gasket & Packing Co., New Brunswick, N. J.
Fieldco—R. B. Field & Co., Worcester, Mass.
Phoenix Specialty Mfg. Co., New York, N. Y.
Right—The Gasket Supply Co., Philadelphia, Pa.
Universal Gasket & Mfg. Co., Chicago, Ill.
Western Packing & Supply Co., Chicago, Ill.

GASKETS, CYLINDER.

Akron Metallic Gasket Co., Akron, O.
McCord Radiator Mfg. Co., Detroit, Mich.
Rockford Leather Washer Co., Rockford, Ill.

GASKETS, FELT.

Advance Felt & Cutting Co., Chicago, Ill.
Algco—Auburn Leather Goods Co., Hartford, Conn
Booth—The Booth Felt Co., Inc., Brooklyn, N. Y.
Brawley, T. R., Brooklyn, N. Y.
Fieldco—R. B. Field & Co., Worcester, Mass.
Phoenix Specialty Mfg. Co., New York.
Ramshead—Western Felt Works, Chicago, Ill.
Rhodes, James H., & Co., Long Island City, N. Y.
Right—Gasket Supply Co., Philadelphia, Pa.
Star Felt Cutting Co., The, Brooklyn, N. Y.
Sutherland Leather & Felt Co., Detroit, Mich.
Tingue, Brown & Co., New York, N. Y.
United States Indestructible Gasket Co., Brooklyn, N. Y.
Waterproof Felt Products Co., Inc., Chicago, Ill. (waterproof).
Western Packing & Supply Co., Chicago, Ill.

GASKETS, GAGE GLASS.

(See "Washers, Gage Glass," and "Glass Preservers, Gage.")

GASKETS, LEATHER, FIBRE AND PAPER.

Adams & Allen, Fort Worth, Texas.
Advance Felt & Cutting Co., Chicago, Ill.
Akron Metallic Gasket Co., Akron, O.
Algco—Auburn Leather Goods Co., Hartford, Conn
American Gasket Co., Milwaukee, Wis.
American Vulcanized Fibre Co., Wilmington, Del.
American Washer Works, Brooklyn, N. Y.
Baeder, Adamson Co., Philadelphia, Pa.
Barwood—The L. J. Barwood Mfg. Co., Stoneham Mass.
Belmont Packing & Supply Co., Philadelphia, Pa.
Booth—The Booth Felt Co., Brooklyn, N. Y.
Brawley, T. R., Brooklyn, N. Y.
Butterworth Supply Co., Philadelphia, Pa.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Chicago-Wilcox Mfg. Co., Chicago, Ill.
Continental Fibre Co., Newark, Del.
Davey Co., The, Jersey City, N. J.
Gray Egyptian—Delaware Hard Fibre Co., Wilmington, Del.
Diamond State Fibre Co., Bridgeport, Pa.
Endura Mfg. Co., Philadelphia, Pa.
Fieldco—R. B. Field & Co., Worcester, Mass.
Forest City Leather Washer Co., Rockford, Ill.
Gibraltar—Burton Greene Leather Co., Chicago, Ill
Graton & Knight Co., Worcester, Mass.
Judd & Leland Mfg. Co., Clifton Springs, N. Y.
Leather Parts Co., Indianapolis, Ind.
Mechanical Rubber Co., The, New York, N. Y.

Never-Leak—The Fitzgerald Mfg. Co., Torrington, Conn.
Phoenix Specialty Mfg. Co., New York, N. Y.
Pneumetalastic—United States Indestructible Gasket Co., Brooklyn, N. Y.
Right—Gasket Supply Co., The, Philadelphia, Pa.
Rockford Leather Washer Co., Rockford, Ill.
Schieren—Chas. A. Schieren & Co., New York (leather).
Sutherland Leather & Felt Co., Detroit, Mich.
United States Rubber Co., New York, N. Y.
Vellumoid—The Vellumoid Co., Boston, Mass.
Vim—E. F. Houghton & Co., Philadelphia, Pa.
Western Packing & Supply Co., Chicago, Ill.
Wilmington Fibre Specialty Co., Wilmington, Del.

GASKETS, MANHOLE AND HANDHOLE.

(See "Gaskets, Rubber and Tubular.")

Akron—Akron Metallic Gasket Co., Akron, O.
American Gasket Co., Milwaukee, Wis.
Metallo Gasket Co., New Brunswick, N. J.
Right—The Gasket Supply Co., Philadelphia, Pa
Nichols, Fred Y., Chicago, Ill.
Semibronze—Adkins, Young & Allen Co., Chicago, Ill.
Western Packing & Supply Co., Chicago, Ill.

GASKETS, METALLIC.

(See "Gaskets, Asbestos-Metallic" and "Gaskets, Brass, Bronze, Etc.")

GASKETS, OIL TANK.

Rockford Leather Washer Co., Rockford, Ill.
Western Packing & Supply Co., Chicago, Ill.

GASKETS, REFINERY.

Akron Metallic Gasket Co., Akron, O.
Metallo Gasket Co., New Brunswick, N. J.
Western Packing & Supply Co., Chicago, Ill.

GASKETS, RUBBER.

Akron Metallic Gasket Co., Akron, O.
Bache, Semon & Co., New York.
Barwood—The L. J. Barwood Mfg. Co., Stoneham, Mass.
Belmont, Petrola—Belmont Packing & Rubber Co., Philadelphia, Pa.
Booth—The Booth Felt Co., Brooklyn, N. Y.
Brandt's Triple Expansion—Randolph Brandt, New York, N. Y.
B. W. H. C. I.—Boston Woven Hose & Rubber Co., Cambridge, Mass.
Canfield—H. O. Canfield Co., Bridgeport, Conn.
Canfield Rubber Co., Bridgeport, Conn.
Century—The Pennsylvania Rubber Co., Jeannette, Pa.
Cincinnati Rubber Co., Cincinnati, Ohio.
Contractors'—Goodrich Rubber Co., B. F., Akron, O.
Diamond Rubber Co., Inc., The, Akron, O. "Indian-Red," "Koo-I-Noor," "Silver Leaf," "Titan."
Double Fold—La Favorite Rubber Mfg. Co., Paterson, N. J.
Double Service Packing Co., Philadelphia, Pa.
Eagleine—Eagle Oil & Supply Co., Boston, Mass.
Ebonite, Hercules, Skihi—Quaker City Rubber Co., Philadelphia, Pa.
Elkhart Rubber Works, Elkhart, Ind.
Essex—Essex Rubber Co., Trenton, N. J.
Gleaner—La Favorite Rubber Mfg. Co., Paterson, N. J.
Good—Good Mfg. Co., Inc., New York, N. Y.
Goodrich—The B. F. Goodrich Rubber Co., Akron, O.
Goodyear Tire & Rubber Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., The, New York.
Hart Packing Co., Boston, Mass.
Helios Crandall—Crandall Packing Co., Palmyra, N. Y.
Hewitt Rubber Co., Buffalo, N. Y.
Hub—Geo. W. Knowlton Rubber Co., Boston, Mass.
Hudson, Clermont, Hi-Test—Hudson Mech'l Rubber Co., New York.
Janos Asbestos Co., New York.
Jenarco—Jenkins Bros., New York, N. Y.
Jenkins 96—Jenkins Bros., New York, N. Y.
Johns-Manville Corporation, New York, N. Y. "J. M. Liberty."
Johnson's—The Henry Johnson Co., Jersey City, N. J.
McRae & Roberts Co., The, Detroit, Mich.
Manhattan Rubber Mfg. Co., Passaic, N. J.
Mechanical Rubber Co., The, Cleveland, Ohio.
N. B. O., Red Rose—Home Rubber Co., Trenton, N. J.
New York Belting & Packing Co., New York, N. Y.
Nichols, Fred Y., Chicago, Ill.
Phoenix Specialty Mfg. Co., New York.
Republic Rubber Co., The, Youngstown, O.
Right—Gasket Supply Co., Philadelphia, Pa.
Ruby—New York Belting & Packing Co., Ltd., New York, N. Y.
Rubberbestos—A. W. Chesterton Co., Boston, Mass
Salamanda—New York Belting & Packing Co., Ltd., New York, N. Y.
Triple Expansion Zena—Randolph Brandt, New York, N. Y.
Union Rubber & Asbestos Co., Trenton, N. J.
United & Globe Rubber, Inc., Trenton, N. J.
United States Rubber Co., New York.
Victor Mfg. & Gasket Co., Chicago, Ill.
Voorhees Rubber Mfg. Co., Jersey City, N. J.
Vulcabeston—Johns-Pratt Co., Hartford, Conn.
Walsh—Walsh Packing Co., Philadelphia, Pa.
W. & B.—Wise & Bailey, Philadelphia, Pa.
Western Packing & Supply Co., Chicago, Ill.
Western Rubber Co., Goshen, Ind.
Wilbow—Williams-Bowman Rubber Co., Cicero, Ill.
Wisoid—Consolidated Packing & Supply Co., New York.

GASKETS, SEWER PIPE.

Presstite—The Presstite Engineering Co., St. Louis, Mo.
Western Packing & Supply Co., Chicago, Ill.

GASKETS, TUBULAR.

Advance Packing & Supply Co., Chicago, Ill.
Akron Metallic Gasket Co., Akron, O.
Albion Mfg. Co., Seattle, Wash. "Albion," "Durobestos."
Asbestos Fibre Spinning Co., North Wales, Pa.
Buffalo Weaving & Belting Co., Buffalo, N. Y.
Consolidated Rubber Co., Trenton, N. J.
Consolidated—Consolidated Packing & Supply Co., New York, N. Y.
Double Service Packing Co., Philadelphia, Pa.
Ebonite—Quaker City Rubber Co., Philadelphia, Pa.
Flexitallic—Flexitallic Gasket Co., Camden, N. J.
General Asbestos & Rubber Co., Charleston, S. C. (Trade names—Delta, Ideal, Semibronze.)
Gleaner—La Favorite Rubber Mfg. Co., Paterson, N. J.
Goetze Gasket & Packing Co., New Brunswick, N. J.
Goodrich—The B. F. Goodrich Rubber Co., Akron, O.
Helios—Crandall Packing Co., Palmyra, N. Y.
Janos Asbestos Co., New York.
Jenkins—Jenkins Bros., New York, N. Y.
Johnson's—The Henry Johnson Co., Jersey City, N. J.
Mechanical Rubber Co., The, Cleveland, Ohio. (Trade names—Saturn, Paxol.)
Nichols, Fred Y., Chicago, Ill.
Phoenix Specialty Mfg. Co., New York.
Pneumetalastic—U. S. Indestructible Gasket Co., Brooklyn, N. Y.
Right—Gasket Supply Co., Philadelphia, Pa.
Ruby—New York Belting & Packing Co., New York, N. Y.
Sandow, Solace—Cincinnati Rubber Mfg. Co., The, Cincinnati, O.
Union Rubber & Asbestos Co., Trenton, N. J.
United States Indestructible Gasket Co., Brooklyn, N. Y.
United States Rubber Co., New York, N. Y.
Western Packing & Supply Co., Chicago, Ill.
Wilcox—Chicago-Wilcox Mfg. Co., Chicago, Ill.
Wise & Bailey, Philadelphia, Pa.

GATES, ASH AND COAL.

De Luxe—United Conveyor Corporation, Chicago, Ill.
Link-Belt Company, Chicago, Ill.
Seaverns, James B., Co., Chicago, Ill.

GATES, BLAST.

A. B. C.—American Blower Co., Detroit, Mich.
American—Tate, Jones & Co., Inc., Leetsdale, Pa.
Anthony—The Anthony Co., Long Island City, N. Y.
Berger Bros. Co., Philadelphia, Pa.
Champion Blower & Forge Co., The, Lancaster, Pa.
Improved Appliance Co., Brooklyn, N. Y.
Lehigh—Hersh Bros. Co., Allentown, Pa.
Mahrvel—Mahr Mfg. Co., Minneapolis, Minn.
Miner & Peck Mfg. Co., Derby, Conn.
Rockwell, W. S., Co., New York, N. Y. (Trade names—Air Tight, Kwikleen, Rockwell.)
Roots, P. H. & F. M., Co., Connersville, Ind.
Skinner Bros. Mfg. Co., St. Louis, Mo.
Western Chief—Canedy-Otto Mfg. Co., Chicago Heights, Ill.

GATES, FLAP AND SHEAR.

Coffin Valve Co., Neponset, Mass.
Covington—Covington Machine Co., Inc., Covington, Va.

GATES, SLUICE.

American Foundry & Mfg. Co., St. Louis, Mo.
American Spiral Pipe Works, Chicago, Ill.
Chapman—Chapman Valve Mfg. Co., Indian Orchard, Mass.
Coffin Valve Co., Neponset, Mass.
Coldwell-Wilcox Co., New York, N. Y.
Columbian Iron Works, Chattanooga, Tenn.
Darling Valve & Mfg. Co., Ltd., The, Williamsport, Pa.
Fox, John, & Co., New York, N. Y.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Kennedy Valve Mfg. Co., Elmira, N. Y.
Ludlow—The Ludlow Valve Mfg. Co., Troy, N. Y.
Treadwell, M. H. Co., Inc., New York, N. Y.
Wellman-Seaver-Morgan Co., Cleveland, O.
Wood & Co., R. D., Philadelphia, Pa.

GATES, WATERWORKS.

Golden Anderson Valve Specialty Co., Pittsburgh, Pa.

GAUGES.

(See "Gages").

GEAR BLANKS.

American Vulcanized Fibre Co., Wilmington, Del.
Bass Foundry & Machine Co., Fort Wayne, Ind.
Caldwell, H. W., & Son Co., Chicago, Ill.
Carnegie Steel Co., Pittsburg, Pa.
Chicago Rawhide Mfg. Co., Chicago.
Cleveland Machinery Co., Cleveland, Tenn.
Continental Fibre Co., Newark, Del.
Ganschow & Co., Wm., Chicago, Ill.
Gibraltar—Burton Greene Leather Co., Chicago, Ill.
Holbrook Raw Hide Co., Providence, R. I.
Leard, Wm., Co., New Brighton, Pa.
Link-Belt Company, Chicago and Philadelphia.
Pyott Foundry Co., Chicago, Ill.
Western Automatic Machine Screw Co., The, Elyria Ohio.
Williams, J. H., & Co., Buffalo, N. Y.
Worcester Pressed Steel Co., Worcester, Mass.

GEARING, FRICTION.

Link-Belt Co., Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.

GEARS AND PINIONS, BAKELITE.

Brown, A. & F., Co., The, Elizabethport, N. J.
Chicago Rawhide Mfg. Co., The, Chicago, Ill.
Earle Gear & Machine Co., The, Philadelphia, Pa.
James, D. O., Mfg. Co., Chicago, Ill.
Simonds Mfg. Co., The, Pittsburgh, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.

GEARS AND PINIONS, BRASS & BRONZE.

Boston Gear Works Sales Co., Norfolk Downs, Mass.
Chicago Rawhide Mfg. Co., The, Chicago, Ill.
Grant Gear Works, Boston, Mass.
Philadelphia Gear Works, Inc., Philadelphia, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.

GEARS AND PINIONS, IRON AND STEEL.

Adams Co., The, Dubuque, Ia.
Albaugh-Dover Co., Chicago, Ill.
American Die & Tool Co., Reading, Pa.
Baush—Baush Machine Tool Co., Mach. Tool Div., Springfield, Mass. (Worm).
Bayard, M. L., & Co., Philadelphia, Pa. (Worm).
Bond, Charles, Co., Philadelphia, Pa.
Boston Gear Works Sales Co., Norfolk Downs, Mass. (Stock or Standard Gears.)
Brown, A. & F., Co., The, Elizabethport, N. J.
Brown & Sharpe Mfg. Co., Providence, R. I.
Caldwell-Walker—H. W. Caldwell & Son Co., Chicago, Ill.
C. M. C.—Christiana Machine Co., Christiana, Pa.
Cincinnati Gear Co., The, Cincinnati, O.
Constant XX Century Corp., Bloomington, Ill.
Cresson-Morris Co., Philadelphia, Pa.
Detroit Gear & Machine Co., Detroit, Mich.
Dodge Mfg. Corp., Mishawaka, Ind. (spur, mitre, bevel, mortise.)
Earle Gear & Machinery Co., Philadelphia, Pa.
Eastwood Wire Mfg. Co., Belleville, N. J.
Falk Corporation, The, Milwaukee, Wis.
Fawcus—Fawcus Machine Co., Pittsburg, Pa.
Fitz Water Wheel Co., Hanover, Pa.
Flather Mfg. Co., The, Nashua, N. H.
Foote Bros. Gear & Machine Co., Chicago, Ill.
Franklin Machine Co., Providence, R. I.
Ganschow Co., Wm., Chicago, Ill.
Garrison—Garrison Machine Works, Dayton, O.
Gleason—The Gleason Works, Rochester, N. Y.
Grant Gear Works, Boston, Mass.
Great Western Mfg. Co., Leavenworth, Kan.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hindley Gear Co., Philadelphia, Pa.
Horsburgh & Scott Co., The, Cleveland, O.
Huntsville Foundry & Machine Works, Huntsville, Ala.
Illinois Tool Works, Chicago, Ill.
J. & L.—Jones & Laughlin Steel Co., Pittsburgh, Pa.
James, D. O., Mfg. Co., Chicago, Ill.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Latimer, Robert L., & Co., Philadelphia, Pa.
Link-Belt Company, Chicago and Philadelphia.
Meachem Gear Corp., Syracuse, N. Y.
Medart Company, The, St. Louis, Mo.
Meisselbach-Catucci Mfg. Co., Newark, N. J.
Mesta Machine Co., The, Pittsburg, Pa.
Morse Chain Co., The, Ithaca, N. Y.
Naylor Bros., Peekskill, N. Y.
Newark Gear Cutting Machine Co., Newark, N. J.
Nordyke & Marmon Co., Indianapolis, Ind.
Nuttall—R. D. Nuttall Co., Pittsburg, Pa.
Philadelphia Gear Works, Inc., Philadelphia, Pa.
Poole Engineering & Machine Co., Baltimore, Md.
Pyott Foundry Co., Chicago, Ill.
Rex—Chain Belt Co., Milwaukee, Wis.
Rockwood—The Rockwood Mfg. Co., Indianapolis, Ind
Sawyer Gear & Mfg. Co., Cleveland, O.
Shriver & Co., T., Harrison, N. J.
Smith-Vaile—The Platt Iron Works Co., Dayton, O
Southwark Foundry & Machine Co., Philadelphia, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Sykes Design—Link-Belt Meese & Gottfried Co., San Francisco, Cal.
Syracuse Gear Co., Syracuse, N. Y.
Tisco—Taylor-Wharton Iron & Steel Co., High Bridge N. J.
Townsend Furnace & Machine Co., Albany, N. Y.
United Engineering & Fdy. Co., Pittsburg, Pa.
Webster Mfg. Co., The, Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Western Automatic Machine Screw Co., The, Elyria, Ohio.
Wheland Company, The, Chattanooga, Tenn.
Williams, J. H., & Co., Buffalo, N. Y.
Wolf Co., The, Chambersburg, Pa.
Worcester Pressed Steel Co., Worcester, Mass. (punched).

GEARS AND PINIONS, RAWHIDE AND FIBRE.

Albaugh-Dover Co., Chicago, Ill.
American Vulcanized Fibre Co., Wilmington, Del.
Brown, A. & F., Co., The, Elizabethport, N. J.
Chicago Rawhide Mfg. Co., The, Chicago, Ill.
Cincinnati Gear Co., The, Cincinnati, O.
Delaware Hard Fibre Co., Wilmington, Del.
Diamond State Fibre Co., Bridgeport, Pa.
Earle Gear & Machinery Co., Philadelphia, Pa.
Fabroil—General Electric Co., Schenectady, N. Y.
Fawcus—Fawcus Machine Co., Pittsburg, Pa.
Ganschow Co., Wm., Chicago, Ill.
Grant Gear Works, Boston, Mass.
Holbrook Raw Hide Co., Providence, R. I.
Horsburgh & Scott Co., The, Cleveland, O.
James, D. O., Mfg. Co., Chicago, Ill.
Jones—W. A. Jones Foundry & Machine Co., Chicago, Ill.
Medart Company, The, St. Louis, Mo.
Northern Engineering Works, Detroit, Mich.
Philadelphia Gear Works, Inc., Philadelphia, Pa.
Standard Fibre Co., Somerville, Mass.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Syracuse Gear Co., Syracuse, N. Y.
Weller Mfg. Co., Chicago, Ill.

GEARS, REVERSE.

Baldridge—Brown Clutch Co., The, Sandusky, O.
Barco—Barco Mfg. Co., Chicago, Ill. (for locomotives).
Ganschow Co., Wm., Chicago, Ill.
McKinnon Iron Works Co., The, Ashtubula, O.
Paragon—Paragon Gear Works, Taunton, Mass.
Syracuse Gear Co., Syracuse, N. Y.
Weller Mfg. Co., Chicago, Ill.

GEARS, SPEED REDUCTION UNITS.

Albaugh-Dover Mfg. Co., The, Chicago, Ill.
Caldwell, H. W., & Son Co., Chicago, Ill.
Birmingham Iron Foundry, Derby, Conn.
Boston Gear Works Sales Co., Norfolk Downs, Mass.
Brown, A. & F., Co., The, Elizabethport, N. J.
Caldwell & Son Co., H. W., Chicago, Ill.
Cleveland Worm & Gear Co., Cleveland, O.
Coates—Coates Clipper Mfg. Co., Worcester, Mass.
Covant—Wm. Ganschow Co., Chicago, Ill.
De Laval Steam Turbine Co., Trenton, N. J.
Earle Gear & Machine Co., The, Philadelphia, Pa.
Economy—Kerr Turbine Co., Wellsville, N. Y.
Falk Corp., The, Milwaukee, Wis.
Fawcus—Fawcus Machine Co., Pittsburgh, Pa.
Herringbone—Moore Steam Turbine Corp., Wellsville, N. Y.
Horsburgh & Scott Co., The, Cleveland, O.
Industrial Type—The Hill Clutch Machine & Foundry Co., Cleveland, O. (Spur).
Hindley Gear Co., Philadelphia, Pa.
IXL—Foote Bros. Gear & Machine Co., Chicago, Ill
James—D. O. James Mfg. Co., Chicago, Ill.
Jones, W. A., Foundry & Machine Co., Chicago, Il
Link-Belt Company, Chicago, Ill.
Medart Company, The, St. Louis, Mo.
Mill Type—Palmer-Bee Co., Detroit, Mich.
Morrison, Geo. Smith, Pittsburgh, Pa.
Nuttall, R. D., Co., Pittsburgh, Pa.
Philadelphia Gear Works, Inc., Philadelphia, Pa
Poole Engineering & Supply Co., Baltimore, Md.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Terry Steam Turbine Co., Hartford, Conn.
Weller Mfg. Co., Chicago, Ill.
Westinghouse—Westinghouse Electric & Mfg. Co., Philadelphia, Pa.
Win—Winfield H. Smith, Springville, Erie Co., N. Y. (small).
Wood, T. B., Sons Company, Chambersburg, Pa.

GENERATING SETS, ELECTRIC.

Allis-Chalmers Co., Milwaukee, Wis.
Bodine Electric Co., Chicago, Ill.
Crocker-Wheeler Electric Mfg. Co., Ampere, N. J.
Cushman Motor Works, Lincoln, Neb. "Cushman."
Diehl Mfg. Co., Elizabeth, N. J.
Dodge—Dodge Mfg. Corp., Mishawaka, Ind.
Engberg's Elec. & Mec'l Works, St. Joseph, Mich.
Esco—Electric Specialty Co., Stamford, Conn.
Fairbanks, Morse & Co., Chicago, Ill.
Fay & Bowen Engine Co., Geneva, N. Y.
General Electric Co., Schenectady, N. Y.
High-Grade—Eck Dynamo & Motor Co., Belleville, N. J.
Ide—A. L. Ide & Sons, Springfield, Ill.
Kerr Turbine Co., Wellsville, N. Y.
Kewanee Private Utilities Co., Kewanee, Ill.
Marathon Electric Mfg. Co., Wausau, Wis.
Peerless—Peerless Electric Co., The, Warren, O
Portland Co., The, Portland, Me.
Robbins & Myers Co., The, Springfield, O. (motor)
Schramm, Inc., West Chester, Pa.
Sprague Electric Works of General Electric Co., New York, N. Y.
Sturtevant—Sturtevant Co., B. F., Hyde Park, Mass
Terry—Terry Steam Turbine Co., Hartford, Conn.
Triumph Electric Co., Cincinnati, Ohio.
Western Electric Co., Chicago, Ill.
Westinghouse Electric & Mfg. Co., Philadelphia, Pa.
Willey—James Clark, Jr., Electric Co., Louisville, Ky.
Winton—The Winton Co., Cleveland, O.

GENERATORS, ACETYLENE, FOR WELDING AND CUTTING.

Brauer Acetylene Lighting Co., The, Marshalltown, Iowa.
Brooks Machine Co., Wichita, Kans.
Carbic Mfg. Co., Duluth, Minn.
Colossus—Colossus Co., Inc., Shreveport, La.
Eveready—Oxweld Acetylene Co., New York, N. Y.

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Imperial Brass Mfg. Co., Chicago, Ill. "Imperial."
Macleod Co., Cincinnati, O.
Meco—Modern Engineering Co., St. Louis, Mo.
Messer Welding Supply Corp., Brooklyn, N. Y.
Milburn, Alexander, Co., The, Baltimore, Md.
Pilot—Oxweld Acetylene Co., New York, N. Y.
Rego—The Bastian Blessing Co., Chicago, Ill.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill.
Williamson—Oxweld Acetylene Co., New York, N. Y.
Weldit—Weldit Acetylene Co., Detroit, Mich.
Willis—Henderson-Willis Welding & Cutting Co., St. Louis, Mo.
World Beater Generator Co., Kansas City, Mo.

GENERATORS OR REGULATORS, HEAT, FOR HOT WATER HEATING SYSTEMS.

Ball Seal Generator Co., Easton, Pa.
Belknap Mfg. Co., The, Bridgeport, Conn.
Clow Temperature Booster—James B. Clow & Sons, Chicago, Ill.
D. & T. Mfg. Co., The, St. Louis, Mo.
Hardt Generator Co., Easton, Pa.
Knickerbocker Valve Co., Oneida, N. Y.
Lattner, P. M., Mfg. Co., Cedar Rapids, Iowa.
Milwaukee Heater Mfg. Co., The, Milwaukee, Wis.
Minneapolis—Honeywell Regulator Co., Minneapolis, Minn.
Phelps—Ideal Mfg. & Supply Co., Oskaloosa, Iowa.
Ryan, E. J., Danville, Ill.
Thrush, H. A., & Co., Peru, Ind.

GENERATORS, HOT WATER.

(See, also, "Heaters, Water, Auxiliary.")
Bate, W. T., & Son, Conshohocken, Pa.
Carroll, P., & Son, Philadelphia, Pa.
Crescent—Chas. Dargent, Brooklyn, N. Y.
Excelso Specialty Co., Buffalo, N. Y.
F. A. T.—Frederick A. Tyler, Albany, N. Y. (for domestic use.)
Goubert—The Griscom-Russell Co., New York, N. Y.
Hotstream Heater Co., Cleveland, O.
Ideal—Syracuse Steam Generator, Inc., Syracuse, N. Y.
J. R. S. Specialties Mfg. Co., Inc., The, New York, N. Y.

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Nugent, Thos., Sons, Inc., New York, N. Y.
Patterson-Kelley Co., The, New York, N. Y.
Reading Heater & Supply Co., Reading, Pa.
R. & F.—Ryan & Fitzpatrick Co., Inc., Troy, N. Y.
Sims Co., The, Erie, Pa.
Smith, Samuel, & Son, Co., Paterson, N. J.
Triumph—James B. Clow & Son, Chicago, Ill.
Tyler, Frederick A., Albany, N. Y.
Wilks, S., Mfg. Co., Chicago, Ill.

GENERATORS, OXYGEN AND HYDROGEN.

Burdett Mfg. Co., Chicago, Ill.
I. O. C.—International Oxygen Co., Newark, N. J.
Milburn, Alexander, Co., The, Baltimore, Md. (Trade names—American Type, Milburn.)
Norwalk Iron Works Co., South Norwalk, Conn.
Shriver, T., & Co., Harrison, N. J.
Southwark Foundry & Machine Co., Philadelphia.

GENERATORS, STEAM.

Bryant—Bryant Heater & Mfg. Co., Cleveland, O.
Combustion Engineering Corp., New York, N. Y.
Elliott Co., Jeannette, Pa.
Ideal—Syracuse Steam Generators, Inc., Muskegon, Mich.
Improved Appliance Co., Brooklyn, N. Y.
Lattner—P. M. Lattner Mfg. Co., Cedar Rapids, Ia.
McKee—Eclipse Fuel & Engineering Co., Rockford, Ill.
Model—John Trageser Steam Copper Works, New York, N. Y.
Moore Steam Turbine Corp., Wellsville, N. Y.
Standard Turbine Corp., Wellsville, N. Y.

GENERATORS, VACUUM, HYDRAULIC.

Blakeslee Mfg. Co., Du Quoin, Ill.
Penberthy—Penberthy Injector Co., Detroit, Mich.

GIANTS, HYDRAULIC MINING.

Abendroth & Root Mfg. Co., Newburgh, N. Y.
Sims—The Sims Co., Erie, Pa.
Thompson Iron Works, The, Philadelphia, Pa.

GLASS PRESERVERS, GAGE.

(See also "Washers, Gage Glass.")
Acme Bulb—Gilbert & Co., Hyattsville, Md.
American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Breakey—L. I. Breakey, Marshall, Mich.
Ernst & Co., Newark, N. J.
Grammes, L. F., & Sons, Allentown, Pa.
Ironclad—Sargent Co., Chicago, Ill.
Macbeth-Evans Glass Co., Pittsburgh, Pa.
Morse Grate Bar Co., Providence, R. I. "Gilbert's."
P. B. H.—The Paul B. Huyette Co., Philadelphia.
Safety First—John F. Robertson Co., Pittsburgh, Pa.
S. S. P. Manufacturing Co., Chicago, Ill. "S. S. P."

GLASS SUBSTITUTE.

Acetol Products, Inc., New York, N. Y. "Cel-O-Glass."

GLASSES, BULL'S EYE.

The Libbey Glass Mfg. Co., Toledo, O. (Trade names—Chicago, Detroit, Nathan.)

GLASSES, GAGE.

Adamant—The Wm. L. McLellan Co., Bridgeport, Conn.
Advance Packing & Supply Co., Chicago, Ill. (Trade names—Firma, Vulcan, Heatherbrand.)

Gauge Glasses

EUREKA Brand Scotch Gauge Glasses
HERCULES Brand HIGH PRESSURE Gauge Glasses
KLINGER Type—Reflex Gauge Glasses
Lubricator and Oil Cup Glasses
Glass Specialties

HIGH GRADE

SEMON BACHE & CO.
Greenwich and Morton Sts.,
NEW YORK, N. Y.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Doerco—Doerr Glass Co., Vineland, N. J.
Durkoe—Durand-Koering Glass Co., Inc., Vineland, N. J.
"Ernst Nonbreakable" Protected Safety—Ernst & Co., Newark, N. J.
Eureka—Semon Bache & Co., New York, N. Y.
Friedrich & Dimmock, New York, N. Y.
Hercules—Semon Bache & Co., New York, N. Y.
Invincible—Nason Mfg. Co., New York.
Ironclad H. P., Macpherson Scotch—Strong Machinery & Supply Co., New York, N. Y.
Jenkins Bros., New York, N. Y. (Trade names—Beacon Red, Moncrieff, Perth, Unific.)
Kimble Glass Co., Chicago, Ill.
Klinger—Klingerit, Inc., New York, N. Y.
Klinger Type—Semon Bache & Co., New York, N. Y.
Libbey, Klinger—Libbey Glass Mfg. Co., Toledo, O.
Macbeth-Evans Glass Co., Pittsburgh, Pa.
Maltese—Semon Bache & Co., New York, N. Y.
Pyrex—Corning Glass Co., Corning, N. Y.
Sonderglas, McGregor—A. W. Chesterton Co., Boston, Mass.
Williamsburg Flint Glass Co., New York, N. Y.

GLASSES, GAGE, REFLEX.

Ernst & Co., Newark, N. J.
Eureka—Semon Bache & Co., New York, N. Y.
Libbey—The Libbey Glass Mfg. Co., Toledo, O.
Klinger—Klingerit, Inc., New York, N. Y.
Macbeth-Evans Glass Co., Pittsburgh, Pa.
Moncrieff—Jenkins Bros., New York, N. Y.

GLASSES, OIL CUP AND LUBRICATOR.

Creamer—Creamer Glass Works, The, Millville, N. J.
Doerco—Doerr Glass Co., Vineland, N. J.
Durabla—Durabla Mfg. Co., New York, N. Y.
Eureka—Semon Bache & Co., New York, N. Y.
Friedrich & Dimmock, New York, N. Y.
Jenkins Bros., New York, N. Y. (Trade names—Beacon Red, Moncrieff, Perth, Rogers, Unific.)
Libbey—Libbey Glass Mfg. Co., Toledo, O.
Macbeth-Evans Glass Co., Pittsburgh, Pa.
McGregor—A. W. Chesterton & Co., Boston, Mass.

GLASSWARE, CHEMICAL.

Francis L. Freas Glass Works, Conshohocken, Pa.

GLASS WOOL.

Friedrich & Dimmock, New York, N. Y.

GLOVES AND MITTENS, ASBESTOS AND LEATHER.

All Wear—All Wear Glove Co., Fairport, N. Y.
Asbestos Fibre Spinning Co., North Wales, Pa.
Asbestos Textile Co., Inc., New York, N. Y.
Eisendrath Glove Co., Chicago, Ill. (Trade names—Asbestol, Standwett.)
Holcomb Safety Garment Co., Chicago, Ill.
Johns-Manville Corporation, New York.
Keller Glove Co., Plumsteadville, Pa. (canvas and jersey, leather palm.)
Protexal—The Safety Equipment Service Co., Cleveland, O.
Pulmosan Safety Equipment Co., Brooklyn, N. Y.
Rubberwear Glove Co., The, Akron, O.
Spartan Glove Co., The, Dayton, O.
Standard Safety Equipment Co., Chicago, Ill.
Steel-Grip—Industrial Gloves Corp., Chicago, Ill. (steel reinforced).
Wheeler—F. H. Wheeler Mfg. Co., Chicago, Ill.

GOGGLES, INDUSTRIAL WORKERS'.

(See also "Protectors, Eye")

Adjustoglas—The Safety Equipment Service Co., Cleveland, O.
Advance Goggle Co., Inc., Chicago, Ill.
American Optical Co., Chicago, Ill.
C. E. S. Co., Fitzwell, Fiber-Weld—Chicago Eye Shield Co., Chicago, Ill.
Electric Arc Cutting & Welding Co., Newark, N. J.
Johnston Optical Co., Detroit, Mich.
Protexwell, Reflectoglas—Merry Optical Co., Kansas City, Mo.
Pulmosan—Pulmosan Safety Equipment Co., Brooklyn, N. Y.
Rego—The Bastian-Blessing Co., Chicago, Ill.
Standard Safety Equipment Co., Chicago, Ill.
Standard Optical Co., Geneva, N. Y.
Strauss & Buegeleisen, New York. Trade names—Eyetects Nosquint, Ventiflex, Allwon, Resistal.

GONGS AND BELLS.

American Foundry & Mfg. Co., St. Louis, Mo.
American Safety Lamp & Mine Supply Co., Scranton, Pa.
American Tube & Stamping Co., Bridgeport, Conn.
Bliss, E. W., Co., Brooklyn, N. Y.
Colonial Tool & Forge Co., The Columbiana, O.
Queen—Harker Mfg. Co., Cincinnati, O.
Powell Co., The Wm., Cincinnati, O.
Reiter, G. C., Canton, O.
Rope Fire Escape Co., Philadelphia, Pa. (elec. and mechanical).
Union Water Meter Co., The, Worcester, Mass. (steam fire alarm).
Wall, P., Mfg. Supply Co., Pittsburg, Pa.

GOOSENECKS, BRANCH.

Hays Mfg. Co., Erie, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Mueller Co., Decatur, Ill.
United Brass Mfg. Co., Cleveland, O.

GOOSENECKS, CAST IRON.

American Foundry & Mfg. Co., St. Louis, Mo.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Duriron Co., Inc., The, Dayton, O.
Federal-Huber Co., Chicago, Ill.
Humphryes Mfg. Co., The, Mansfield, O.
Jones Hollow Ware Co., Baltimore, Md.
Kupferle, John C., Foundry Co., St. Louis, Mo.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Modern Iron Works, Quincy, Ill.
Reading Steel Casting Co., Bridgeport, Conn.
Red Jacket Mfg. Co., Davenport, Ia.
Riverside Foundry & Galvanizing Co., Kalamazoo, Mich.
United Brass Mfg. Co., Cleveland, O.

GOOSENECKS, LEAD, CORPORATION COCK.

American Foundry & Mfg. Co., St. Louis, Mo.
Bernz, Otto, Newark, N. J.
Braunsdorf-Mueller Co., Elizabeth, N. J.
Carver Tool Works, Spring Valley, N. Y.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Mueller Co., Decatur, Ill.
Swan, James, & Son, The, Seymour, Conn.

GOUGES.

Delaware—Otto Bernz Co., Inc., Newark, N. J.
Braunsdorf-Mueller Co., Elizabeth, N. J.
Buck Bros., Millbury, Mass.
Buffum Tool Co., Louisiana, Mo.
Dasco—Damascus Steel Products Co., Rockford, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Greenlee Bros. & Co., Rockford, Ill.
Hargrave—The Cincinnati Tool Co., Cincinnati, O.
Jennings, C. E. & Co., New York, N. Y.
Mack & Co., Rochester, N. Y.
Marcy Tool Works, The, Putnam, Conn.
Swan Co., Jas., Seymour, Conn.
Union Hardware Co., Torrington, Conn.
Verona Tool Works, Pittsburgh, Pa.
White Co., L. & I. J., Buffalo, N. Y.

GOVERNORS, AIR COMPRESSOR.

Fisher Governor Co., The, Marshalltown, Iowa.
Foster—Foster Engineering Co., Newark, N. J.
Gardner—Gardner Governor Co., Quincy, Ill.
Ingersoll-Rand Co., New York, N. Y.
McAlear Mfg. Co., The, Chicago, Ill.
Roots, P. H. & F. M., Co., Connersville, Ind.
Walworth Company, Boston, Mass.
Watson—Watson & McDaniel Co., Philadelphia, Pa.
Westinghouse Traction Brake Co., Pittsburgh, Pa.

GOVERNORS, BOILER FEED.

(See also "Governors, Steam Pump" and "Regulators, Feed Water Heater")

Cleveland—Cleveland Feed Water Regulator Co., The, Cleveland, O.
Fisher Governor Co., The, Marshalltown, Iowa.
Fulton—Chaplin, Fulton Mfg. Co., Pittsburg, Pa.
Johnson—Johnson Service Co., Milwaukee, Wis.
Judson—Judson Governor Co., Rochester, N. Y.
Kitts—Kitts Mfg. Co., Oswego, N. Y.
McAlear Mfg. Co., The, Chicago, Ill.
Nelson Automatic Boiler Water Feed Co., Chicago, Ill.
Walworth Company, Boston, Mass.
Watson—Watson & McDaniel Co., Philadelphia, Pa.
Williams Gauge Co., The, Pittsburgh, Pa.
Wright-Austin—Wright-Austin Company, Detroit, Mich.

GOVERNORS, ENGINE.

Allis-Chalmers Co., Milwaukee, Wis.
Gardner Governor Co., The, Quincy, Ill.
Gunther—The Wright Machine Co., Owensboro, Ky.
Hoosier—The Sinker-Davis Co., Indianapolis, Ind.
Johnson—Johnson Service Co., Milwaukee, Wis.
Judson Governor Co., Rochester, N. Y. (Trade names—Eclipse, Judson, New Judson — for steam and gas engines.)
King—Sinker-Davis Co., The, Indianapolis, Ind.
Massey, Jahns—**Massey Machine Co., Watertown,** N. Y.
McDonough Automatic Regulator Co., Detroit, Mich.
Pickering Ball Ranger—The Pickering Governor Co., Portland, Conn. (for steam and gas engine).
Waters Governor Co., Boston, Mass. "Waters."

GOVERNORS, EXCESS PRESSURE.

Fisher Governor Co., The, Marshalltown, Ia.
Foster—Foster Engineering Co., Newark, N. J.
Klipfel Mfg. Co., Chicago, Ill.
Kitts Mfg. Co., Oswego, N. Y.
McAlear Mfg. Co., The, Chicago, Ill.
Mason Regulator Co., Boston, Mass.
Strong, Carlisle & Hammond Co., Cleveland, O.

GOVERNORS, FUEL OIL PUMP.

Fisher Governor Co., The, Marshalltown, Iowa.
Foster—Foster Engineering Co., Newark, N. J.
Little Giant—G. E. Witt Co., Inc., San Francisco, Cal
McAlear Mfg. Co., The, Chicago, Ill.
Mason Regulator Co., Boston, Mass.

GOVERNORS, GAS.

Davis & Farnum Mfg. Co., Waltham, Mass.
Emco, Equitable—Equitable Meter Co., Pittsburgh, Pa.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster—Foster Engineering Co., Newark, N. J.
Foulis—Helme & McIlhenny, Philadelphia, Pa.
Fulton—Chaplin-Fulton Mfg. Co., Pittsburgh, Pa.
Lawler's Automatic—Lawler Waterfeed & Damper Co., Mt. Vernon, N. Y.
McAlear Mfg. Co., The, Chicago, Ill.
Roots, P. H. & F. M., Co., Connersville, Ind.

GOVERNORS, GAS ENGINE.

Duplex, Simplex—Duplex Engine-Governor Co., Inc., Brooklyn, N. Y.
Judson Governor Co., Rochester, N. Y.
Pickering Ball Ranger—The Pickering Governor Co., Portland, Conn.
Quincy—Wall Pump & Compressor Co., Quincy, Ill.

GOVERNORS, HYDRAULIC TURBINE.

Hydraulic Press Mfg. Co., The, Columbus, O. "H. P. M."
Lombard Governor Co., Ashland, Mass.

GOVERNORS OR REGULATORS, PUMP.

(See also "Regulators, Feed Water Heater")

Albany—Albany Steam Trap Co., Albany, N. Y.
Allis-Chalmers Co., Milwaukee, Wis.
Atlas Valve Co., Newark, N. J.
Bates—Edward P. Bates, Syracuse, N. Y.
Belfield Co., H., Philadelphia, Pa.
Berry—The Berry Engineering Co., Chester, Pa.
Billow—National Supply Co., Chicago, Ill.
Blakeslee Mfg. Co., Du Quoin, Ill. (for jet pumps.)
Boardman—Locke Regulator Co., Salem, Mass.
Boylston—Boylston Steam Specialty Co., Chicago, Ill.
Burrows—Burrows, F. A., Mfg. Co., York, Pa.
B-Y—Cleveland Feed Water Regulator Co., The, Cleveland, O.
Cash Co., A. W., Decatur, Ill.
Curtis—Julian d'Este Co., Boston, Mass.
Copes—Northern Equipment Co., Erie, Pa.
Davis—G. M. Davis Regulator Co., Chicago, Ill.
Dean Bros. Steam Pump Works, Indianapolis, Ind.
Dunham—C. A. Dunham Co., Inc., Chicago, Ill.
Eclipse—Illinois Engineering Co., Chicago, Ill.
Economy—American Safety Lamp & Mine Supply Co., Scranton, Pa.
Edward—Edward Valve & Mfg. Co., East Chicago, Ind.
Fisher—The Fisher Governor Co., Marshalltown, Ia
Ford—Ford Regulator Corp., New York, N. Y.
Foster—Foster Engineering Co., Newark, N. J.
Foster—Walworth Company, Boston, Mass.
Fulton—The Chaplin-Fulton Mfg. Co., Pittsburg, Pa
Gardner Governor Co., The, Quincy, Ill.
Heisley's—Central Machine Co., Philadelphia.
Hennebohle Co., Chicago, Ill.
Hydraulic Press Mfg. Co., The, Columbus, O.
Illinois Engineering Co., Chicago, Ill. "John Davis."
Johnson—Johnson Service Co., Milwaukee, Wis.
K. & T.—Klipfel Mfg. Co., Chicago, Ill.
Kitts Mfg. Co., Oswego, N. Y.
Little Giant—G. E. Witt Co., Inc., San Francisco, Cal.
Locke—Locke Regulator Co., Salem, Mass.
Mason—Mason Regulator Co., Boston, Mass.
McAlear Mfg. Co., The, Chicago, Ill.
McDonough Coal Saving Corp., Detroit, Mich. "McDonough."
Monash—Monash-Younker Co., Chicago, Ill.
Kieley & Muller, New York, N. Y.
Mueller Steam Specialty Co., Inc., New York, N. Y.
Northern Equipment Co., Erie, Penna.
O.K.—Kitts Steam Specialties Co., Oswego, N. Y.
Perfection—Chicago Engineers' Supply Co., Chicago
Perfection—Boylston Steam Specialty Co., Chicago, Ill.
Pittsburgh Gage & Supply Co., Pittsburg, Pa.
Pittsburgh Valve, Fdy. & Construction Co., Pittsburgh, Pa.
Ruggles-Klingemann Mfg. Co., Salem, Mass.
Schade—Schade Valve Mfg. Co., Philadelphia, Pa.
Spence Engineering Co., Inc., New York, N. Y.
Squires Genuine—The C. E. Squires Co., Cleveland, Ohio.
Strong's—Strong, Carlisle & Hammond Co., Cleveland
Tag—C. J. Tagliabue Mfg. Co., Brooklyn, N. Y.
Utility—Standard Steam Specialty Co., New York.
Waters—Waters Governor Co., Boston, Mass.
Watson—Watson & McDaniel Co., Philadelphia, Pa.
Watts Regulator Co., Lawrence, Mass.
Williams—The Williams Gauge Co., Pittsburg, Pa
Witts—G. E. Witt Co., Inc., San Francisco, Calif.
Wood & Co., R. D., Philadelphia, Pa.
Wright-Austin Co., Detroit, Mich.

GOVERNORS, STEAM TURBINE.

Foster—Foster Engineering Co., Newark, N. J.

GOVERNORS, VACUUM PUMP.

Bishop & Babcock Co., The, Cleveland, O.
Boylston—Boylston Steam Specialty Co., Chicago.
Davis Regulator Co., G. M., Chicago, Ill.
Dunham—C. A. Dunham, Inc., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Ia
Foster—Foster Engineering Co., Newark, N. J.
Foster—Walworth Company, Boston, Mass.
Kieley & Muller, New York, N. Y.
Kitts Mfg. Co., Oswego, N. Y.
K. & T.—Klipfel Mfg. Co., Chicago, Ill.
Mason Regulator Co., Boston, Mass.
McAlear Mfg. Co., Chicago, Ill.
Monash—Monash Younker Co., Chicago, Ill.
Peco—Pittsburgh Engineering Co., Jeannette, Pa.
Rochester—Rochester Vacuum Valve Co., Rochester, N. Y.
R-K—Ruggles-Klingemann Mfg. Co., Salem, Mass.
Schade—Schade Valve Mfg. Co., Philadelphia.
Witt's—G. E. Witt Co., Inc., San Francisco, Cal.

GOVERNORS, WATER WHEEL.

Holyoke Machine Co., Worcester, Mass.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Smith, S. Morgan, Co., York, Pa.
Woodward Governor Co., Rockford, Ill.

GRADERS, ROAD.

(See, also, "Machinery Road Making.")

Good Roads Machinery Co., Inc., Kennett Square, Pa. (Trade names—Climax, Winner.)
Keystone—Keystone Driller Co., Beaver Falls, Pa.
Reliance—Universal Road Machinery Co., Kingston, N. Y.

GRAPHITE.

Asbury Graphite Mills, Asbury, N. J.
Carbo-Graph—Hill & Griffith Co., Cincinnati, O.
Dixon Crucible Co., Joseph, Jersey City, N. J.
Federal Graphite Mills Co., Cleveland, O.
Kelly—Kelly Graphite Mills, The, New York.
McCullough-Dalzell Crucible Co., Pittsburg, Pa.
Superior Flake Graphite Co., Chicago, Ill. (flake and amorphous.) "Superflake." "Motorflake."
Oildag, Aquadag—Acheson Oildag Co., Port Huron, Mich.
Patton's Standard—Pittsburgh Plate Glass Co. (Patton-Pitcairn Div.), Newark, N. J.
Pure Flake—The Henry Johnson Co., Jersey City, N. J.
United States Graphite Co., Saginaw, Mich.

GRAPHITE, BOILER.

Dearaco—Detroit Graphite Co., Detroit, Mich.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Superflake—Superior Flake Graphite Co., Chicago, Ill.
United States Graphite Co., Saginaw, Mich.

GRAPHITE, RODS, PLATES, ETC.

Superior Flake Graphite Co., Chicago, Ill. "Superflake."

GRATES, SEWER.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
Barnes Mfg. Co., Mansfield, O.
Boosey—Greenwood Mfg. Co., Detroit, Mich.
Canton Foundry & Machine Co., The, Canton, O.
Clarksville Foundry & Machine Works, Clarksville, Tenn.
Clow, James B., & Sons, Chicago, Ill.
Concord Foundry & Machine Co., Concord, N. H.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
Duplex Mfg. & Foundry Co., Elyria, O.
Eclipse—John C. Kupferle Foundry Co., St. Louis, Mo.
Farrar & Trefts, Inc., Buffalo, N. Y.
Glenn Mfg. Co., St. Charles, Ill.
Guenther Foundry, Columbus, O.
Indiana Foundry Co., Indiana, Pa.
Jones Hollow Ware Co., Baltimore, Md.
McChesney Foundry & Mfg. Co., El Paso, Tex.
M. I. W.—Modern Iron Works, Quincy, Ill.
Mott, J. L., Iron Works, Trenton, N. J.
Newbury Mfg. Co., Monroe, N. Y.
Nute, McGhee, Geary Co., Chambersburg, Pa.
Reading Foundry & Supply Co., Reading, Pa.
Smith-Matthews Foundry, Detroit, Mich.
Swett Iron Works, A. L., Medina, N. Y.

GRATES AND GRATE BARS, STATIONARY.

A. C. Co.—Lancaster Iron Works, Inc., Lancaster, Pa. (Kiln.)
American Foundry & Mfg. Co., St. Louis, Mo.
Bass Foundry & Machine Co., Fort Wayne, Ind.
Boyts, Porter Co., Connellsville, Pa.
Budd—The Budd Grate Co., Philadelphia, Pa.
Casey-Hedges Co., The, Chattanooga, Tenn.
Cokal—Cokal Stoker Corp., Chicago.
Combustion Engineering Corp., New York, N. Y. "Grieve."
Continental—Manistee Iron Works Co., Manistee Mich. (chain).
Clark—H. W. Clark Co., Mattoon, Ill.
Codd—Codd Tank & Specialty Co., Baltimore, Md.
Dean—Washburn & Granger, New York.
Downey—T. F. Downey Boiler Works, Chicago, Ill.
Economy—Economy Grate & Equipment Co., New York, N. Y.
Elkhart Special—Elkhart Iron Works, Elkhart, Ind.
Farquhar Co., Ltd., A. B., York, Pa.
Fee & Mason Mfg. Co., New York, N. Y.
Ferguson & Lange Foundry Co., Chicago, Ill.
Forbes, John R., Foundry & Iron Works, Jersey City, N. J.
Foster—Woburn Iron Foundry, Inc., Woburn, Mass.
Fox Hill—Ferguson, F., & Son, Hoboken, N. J.
Fritz, Geo. J., Foundry & Machine Co., St. Louis, Mo.
Gainesville Foundry & Machine Works, Gainesville, Fla.
Gibson—Gibson Iron Works Co., Jersey City, N. J.
Godfrey-Keeler Co., New York, N. Y.
Golden's Foundry & Machine Co., Columbus, O.
Gordon, Tuyere—Gordon Hollow Blast Grate Co., Greenville, Mich.
Goyne—The Goyne Steam Pump Co., Ashland, Pa.
Great Western Mfg. Co., Leavenworth, Kan.
Greenwood Mfg. Co., Detroit, Mich.
Guilderland Foundry Co., Guilderland, N. Y.
Hartley Boiler Works, Montgomery, Ala.
Hawley Down Draft Furnace Co., Easton, Pa.
Heath Grate Bar Co., Boston, Mass.
Herbert Oscillating—The Herbert Boiler Co., Chicago
Herringbone—Valley Iron Works, Williamsport, Pa.
Hoosier—The Sinker-Davis Co., Indianapolis, Ind.
Huntsville Foundry & Machine Works, Huntsville, Ala.
Impervious—Thomas Grate Bar Co., Birmingham, Ala.
Indiana Foundry Co., Indiana, Pa.
Kelly Foundry & Machine Co., Goshen, Ind.
King-Bate Co., The, Conshohocken, Pa. "Bate."
Lamy, A. & Son, Elizabeth, N. J.
Marion Master—Marion Machine, Foundry & Supply Co., Marion, Ind.
McClave-Brooks Co., Scranton, Pa.
McClave's, Beggs, Ellis-McClave—James Beggs & Co New York, N. Y.
McKenzie Furnace Co., Chicago, Ill.
McNaughton—Beach Mfg. Co., Charlotte, Mich.
Machinery Company of America, Big Rapids, Mich
Mahoney—Godfrey Keeler Co., New York, N. Y.
Modern Iron Works, Quincy, Ill.
Munroe & Sons Mfg. Corp., R., Pittsburg, Pa.
National—National Foundry & Mfg. Co., Williamsport, Pa.
National Malleable & Steel Castings Co., Cleveland, O.
National Smokeless—New Albany Mfg. Co., New Albany, Ind.
Olyphant Foundry Co., Olyphant, Pa.
Pittsburgh Engineering Co., Jeannette, Pa. "Peco."
Portland Co., Portland, Me.
Power Turbo Blower Co., New York.
Raleigh Iron Works Co., Raleigh, N. C.
Reed—The H. B. Smith Mfg. Co., Westfield, Mass.
Rosedale Foundry & Machine Co., Pittsburgh, Pa.
Salamander—Salamander Grate Bar Co., New York
Schofield's Sons Co., J. S., Macon, Ga.
Schriver Iron Works, Inc., Maryville, Tenn. "McNaughton."
Sinker-Davis Co., The, Indianapolis, Ind.
Smith-Matthews Foundry Co., Detroit, Mich.
Stuart Foundry Co., Detroit, Mich.
Superior—Superior Iron Works Co., Superior, Wis.
Thomas, W-S. D.—Thomas Grate Bar Co., Birmingham, Ala.
Thomas Elliptic, Thomas Impervious—Thomas Grate Bar Co., Birmingham Ala. (rocker type).
Toronto Foundry & Machine Co., Inc., Toronto, O.
Tread-Kill—Treadwell, M. H., Co., Inc., New York, N. Y.
Tupper—Valley Iron Wks., Williamsport, Pa.
Walsh & Weidner Boiler Co., The, Chattanooga, Tenn
Weiskittel, A., & Son Co., Baltimore, Md.
White—The Steam Appliance Co., West Allis, Wis.

GRATES, SHAKING, DUMPING AND ROCKING.
(See also "Stokers, Mechanical.")

Aetna—Kewanee Boiler Co., Kewanee, Ill. (shaking).
Ajax—Valley Iron Works, Williamsport, Pa.
Armstrong—Armstrong Mfg. Co., Springfield, O.
Bass Foundry & Machine Co., Fort Wayne, Ind.
Blakeslee—Blakeslee Mfg. Co., Duquoin, Ill.
Bros, Wm., Boiler & Mfg. Co., Minneapolis, Minn.
Budd Grate Co., Philadelphia, Pa.
Burke Engineering Co., Chicago, Ill.
Canton—Canton Grate Co., Canton, O.
Casey-Hedges Co., The, Chattanooga, Tenn.
Century—Kewanee Boiler Co., Kewanee, Ill. (rocking).
Coe—Nute, McGehee, Geary Co., Chambersburg, Pa
Combustion Engineering Corp., New York, N. Y. "Grieve."
Culver—Automatic Furnace Co., The, Dayton, Ohio.
Cyclone Grate Bar Co., Buffalo, N. Y. "Cyclone."
Dean—Washburn & Granger, New York, N. Y
Dillon, D. M., Steam Boiler Works, Fitchburg, Mass.
Downey—T. F. Downey Boiler Works, Chicago, Ill
Elkhart No. 9—Elkhart Iron Works, Elkhart, Ind.
Ellis-McClave—James Beggs & Co., New York, N. Y.
Foster—Woburn Iron Foundry, Inc., Woburn, Mass.
Frost, Mfg. Co., Galesburg, Ill.
Gardner—Gardner Grate Co., Boston, Mass
Hafer—Nute, McGehee, Geary Co., Chambersburg, Pa.
Herrick, George S., Syracuse, N. Y.
Hoosier—The Sinker-Davis Co., Indianapolis, Ind.
Hulson—Hulson Grate Co., Keokuk, Ia.
Kelly Foundry & Machine Co., Goshen, Ind.
Kelly—Milwaukee Boiler Mfg. Co., Milwaukee, Wis.
Lo. Co., McGinty—Kramer Bros. Foundry Co., The, Dayton, O.
MacDonald—International Engineering Wks., Inc., Framingham, Mass.
McClave—McClave-Brooks Co., Scranton, Pa.
McKenzie Furnace Co., Chicago, Ill.
Mahoney—Godfrey-Keeler Co., New York, N. Y.
Marion Rocker—Marion Machine, Foundry & Supply Co., Marion, Ind.
Martin Grate Co., Chicago, Ill. (Trade names—Martin, Union, Economy.)
Milwaukee Boiler Mfg. Co., The, Milwaukee, Wis.
Morse—R. F. Morse Co., Providence, R. I.
Murray Iron Works Co., Burlington, Ia. "Murray."
National—National Foundry & Mfg. Co., Williamsport, Pa.
Neemes Bros., Troy, N. Y.
Patch—Futrell Coupler Co., Streator, Ill.
Peerless—James McMillan & Co., Chicago, Ill.
Perfection Grate & Supply Co., Springfield, Mass.
Pittsburgh—Rosedale Foundry & Machine Co., Pittsburgh, Pa.
Schofield's, J. S., Sons Co., Macon, Ga. (hand).
Schriver Iron Works, Inc., Maryville, Tenn. "McNaughton."
Scranton—Scranton Pump Co., Scranton, Pa.
Scottdale Grates—Marion Machine, Foundry & Supply Co., Marion, Ind.
Torrid—Alonzo Hoover & Son, Hackettstown, N. J.
Travis, G. E., Henry, Ill.
20th Century—Twin Fire Furnace Co., Chicago, Ill.
U. S.—United States Rocking Grate Bar Co., Chicago, Ill.
Walsh & Weidner Boiler Co., The, Chattanooga, Tenn.

GRATES, WATER.

Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
National & Shelby—National Tube Co., Pittsburgh, Pa.

GREASE AND COATING, GEAR AND PINION.

Acme—The Acme Mfg. Co., Cleveland, O.
Baum's Castorine Co., Rome, N. Y.
Bull Dog—Indian Refining Co., Inc., New York.
Damascus Mfg. Corp., Cleveland, O.
En-Ar-Co—National Refining Co., Cleveland, O.
Economy Oil Co., Chicago, Ill.
Gearese—Swan-Finch Oil Corp., New York, N. Y.
Lubrihide—The Chicago Rawhide Mfg. Co., Chicago, Ill.
Metaline Chemical Co., Cleveland, O. "Gear-Kote."
Phoenix Oil Co., The, Cleveland, O. (Trade names—Gear Lub, Kushion Gear Koating, C. C., R. M.)
Schaeffer Bros. & Powell Mfg. Co., St. Louis, Mo.
Standard—Standard Chemical Corp., Kalamazoo, Mich.
Stixo—Acme Refining Co., Cleveland, O.
The Texas Co., New York, N. Y. "Texaco Crater Compound."
Waverly—Waverly Oil Works Co., Pittsburg, Pa.
Whitmore's—Whitmore Mfg. Co., The, Cleveland, O.
Zero Oil Co., Parkersburg, W. Va.

GREASES, GRAPHITE.

Bartley, Jonathan, Crucible Co., Trenton, N. J.
Baum's Castorine Co., Rome, N. Y.
Degraco—Detroit Graphite Co., Detroit, Mich.
Dixon, Joseph, Crucible Co., Jersey City, N. J.
Gredag—Acheson Graphite Co., Niagara Falls, N. Y.
Superflake—Superior Flake Graphite Co., Chicago, Ill.
United States Graphite Co., Saginaw, Mich.

GREASE, LUBRICATING.

(See also "Graphite" and "Lubricants.")

Acme—The Acme Mfg. Co., Cleveland, O.
Alpha—Albany Lubricating Co., 6 Varick St., New York, N. Y.
Albion—Albion Mfg. Co., Seattle, Wash.
American—American Oil Corp., Jackson, Mich.
American Oil Refining Co., Chicago, Ill.
Amoilco—American Oil Corp., Jackson, Mich.
Aquadag—Acheson Oildag Co., Port Huron, Mich.
Asbury Graphite Mills, Asbury, N. J.
Atkinson—Economy Lubricating Co., Boston, Mass.
Bandcyl—Economy Oil Co., Chicago, Ill.
Badger—Wadhams Oil Co., Milwaukee, Wis.
Baum's—Baum's Castorine Co., Rome, N. Y.
Bondeline—Bond Foundry & Machine Co., Manheim, Pa.
Buck, E. A., & Co., Inc., Willimantic, Conn.
Chard & Howe, New York, N. Y.
Chelsea—Chelsea Oil & Supply Co., New York, N. Y
Cherry Chemical Co., The, Philadelphia, Pa. "Red Seal."
Cincinnati Oil Works, Cincinnati, O.
Climax—Daniel Mahoney & Sons, Commercial Oil Co., Buffalo, N. Y.
Cook's, Adam, Sons, Inc., New York, N.Y. "'Alpha," "Pressuregrease."
Crane's, White Rose—James W. Crane Co., Inc., Brooklyn, N. Y.
Damascus—Damascus Mfg. Corp., Cleveland, O.
Detroit—White Star Refining Co., Detroit, Mich.
Dixon Crucible Co., Joseph, Jersey City, N. J.
Duplex—Enterprise Oil Company, Buffalo, N. Y.
Duryea Mfg. Co., Bayonne, N. J.
Ebonite—Bayerson Oil Works, Erie, Pa.
En-Ar-Co.—National Refining Co., The, Cleveland, Ohio.
Ensign Refining Co., The, Cleveland, O.
Enterprise—Enterprise Oil Company, Buffalo, N. Y.
Farmer Allerton—Warren Lubricant Co., Buffalo, N. Y.
Franklin—Franklin Oil & Gas Co., Bedford, O.
Galena Signal Oil Co., Franklin, Pa.
Gold Crown—Oklahoma Producing & Refining Corp. of America, Muskogee, Okla.
Greoil—Wm. C. Robinson & Son Co., Baltimore, Md.
Great Western Oil Co., The, Cleveland, O.
Gulf Refining Co., Pittsburgh, Pa. "Supreme."
Harris—A. W. Harris Oil Co., Providence, R. I.
Havoline, Indian—Indian Refining Co., New York City.
Hercules, Green Seal—Phoenix Oil Co., Cleveland, Ohio.
Houghton, E. F., & Co., Philadelphia, Pa.
Ironsides—The Ironsides Co., Columbus, O.
Kasson—Enterprise Oil Co., Buffalo, N. Y.
Kelly Graphite Mills, New York, N. Y.
Key Boiler Equipment Co., East St. Louis, Mo.
Keysol—Keystone Oil & Mfg. Co., Chicago, Ill.
Lubriko Co., The, Philadelphia, Pa.
Lubron Co., The, Everett, Mass. Trade names—Lubron, Diamond, Knowlton, Wakelee, Ellis.
Mobiloils—Vacuum Oil Co., New York.
Monarch Mfg. Co., Council Bluffs, Iowa. (Trade names—Gold Medal, Mona Mobile, Monarch, Slickery, Sunlight.)
Moore Oil Refining Co., Cincinnati, O.
Non-Fluid—New York & New Jersey Lubricant Co., New York, N. Y.
Nun-bet-er—S. W. Davis Oil Co., Providence, R. I.
Ohio, Hilo—The Ohio Grease Co., Loudonville, O.
Oilzum—White & Bagley Co., Worcester, Mass.
Panhard—Panhard Oil Corp., New York, N. Y.
Perfecto—Warren Lubricant Co., New York, N. Y.
Perfectus, Supremus—International Refining & Mfg. Co., Evanston, Ill.
Philadelphia Grease Mfg Co., The, Philadelphia, Pa.
P. L. C.—Patterson Lubricating Co., Boston, Mass.
Quaker State—The Star Oil Co., Chicago, Ill.
Rock Brand—Magie Bros., Chicago, Ill.
Royersford Foundry & Machine Co., Royersford, Pa. "Rollerine."
Sanderson—Warren Lubricant Co., Buffalo, N. Y.
Schaeffer Bros. & Powell Mfg. Co., St. Louis, Mo.
S. K. F.—S. K. F. Industries, Inc., New York, N. Y.
Shaftene—The Tropical Paint & Oil Co., Cleveland, O.
Shield—The Ironsides Co., Columbus, O.
Sonneborn Sons, Inc., L., New York, N. Y.
Spermo—Warren Lubricant Co., Buffalo, N. Y.
Sponge Grease—Warren Lubricant Co., Buffalo, N. Y.
Standard Oil Co. of New York, New York, N. Y.—"Arctic," "Mico," "Polarine," "Premier."
Swan-Finch Oil Corp., New York, N. Y. (Trade names—Asbestese (wool mixed), Atlas, Bison, Cascade, Claypool, Cupese, Calypsol Exese, Gearease (for gears), Monarch, Plumbago, Petro, Tiger D, Vesuvese.
Swastika—McLean-Jones Oil & Supply Co., Inc., Boston, Mass.
Texaco—The Texas Co., New York, N. Y.
Tiona—Warren Lubricant Co., Buffalo, N. Y. (axle).
Tycol, Vedol—Tide Water Oil Co., New York, N. Y.
Universal—Warren Lubricant Co., Buffalo, N. Y.
U. S. G. Co.—United States Graphite Co., Saginaw, Mich.
Warleys—Thos. C. Warley & Co., Philadelphia.
Waverly—Waverly Oil Works Co., Pittsburg, Pa.
World Motorrite—The World Refining Co., Easton, Pa.
Zero—Daniel Mahoney & Sons, Commercial Oil Co., Buffalo, N. Y.
Zero Oil Co., Parkersburg, W. Va. (Axle, Cup & Transmission).
Zerola—Metaline Chemical Co., Cleveland, O.

GRILLES, PERFORATED, STEEL, BRASS AND BRONZE.

American Wire Fabrics Corporation, New York, N. Y.
Tuttle & Bailey Mfg. Co., New York, N. Y. "Ferrocraft."

GRILLES, CAST, FOR HEATING AND VENTILATING.

Tuttle & Bailey Mfg. Co., New York, N. Y. "Ferrocraft."

GRILLES, FOR RADIATOR ENCLOSURES.

Tuttle & Bailey Mfg. Co., New York, N. Y. "Ferrocraft."

GRINDERS, AERIAL.

Cincinnati Electrical Tool Co., The, Cincinnati, O.
Ideal—Neil & Smith Electric Tool Co., Cincinnati, O.
Standard Electric Tool Co., Cincinnati, O.
Van Dorn Electric Tool Co., Cleveland, O.

GRINDERS, ANGLE PLATE OR PARALLEL.

Hisey—The Hisey-Wolf Machine Co., Cincinnati, O.
U. S. Electrical Tool Co., The, Cincinnati, Ohio.

GRINDERS, AUTOMATIC AND SEMI-AUTOMATIC.

Brown & Sharpe Mfg. Co., Providence, R. I.
Detroit Machine Tool Co., Detroit, Mich.
Diamond—Diamond Machine Co., Providence, R. I.
Hawes, C. L., Ashtabula, O. (small).
Reed-Prentice Corp., Worcester, Mass. "Fraser."

GRINDERS, BENCH AND FLOOR, BELT DRIVEN.

Athol Machine Co., Athol, Mass.
B. & D.—The Black & Decker Mfg. Co., Towson, Md.
Blount, J. G., Co., Everett, Mass.
Bond—Bond Foundry & Machine Co., Manheim, Pa.
Builders Iron Foundry, Providence, R. I.
Champion Blower & Forge Co., The, Lancaster, Pa.
Cleveland Stone Co., Cleveland, Ohio. "Sterling."
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Cortland, King—Cortland Grinding Wheels Corp., Chester, Mass.
Crescent—Columbia Mfg. Co., Belleville, Ill.
Diamond Machine Co., Providence, R. I.
Goodell-Pratt Co., Greenfield, Mass.
Haskins—R. G. Haskins Co., Chicago, Ill.
Hill-Curtis Co., Kalamazoo, Mich.
Kerrihard Co., Red Oak, Iowa.

La Salle No. 1—La Salle Machine & Tool Co., La Salle, Ill.
Luther Grinder Mfg. Co., Milwaukee, Wis.
Master Electric Co., Dayton, Ohio.
Moak Machine & Supply Co., Port Huron, Mich.
Morse—Morse Twist Drill & Machine Co., New Bedford, Mass.
Norton—Norton Co., Worcester Mass.
Partridge—E. O. Partridge, Chicago, Ill.
Ransom Mfg. Co., Oshkosh, Wis.
Royersford Foundry & Machine Co., Royersford, Pa.
Sellew Machine Tool Co., Pawtucket, R. I.
Standard—Luther Grinder Mfg. Co., Milwaukee, Wis.
Stow Manufacturing Co., Inc., Binghamton, N. Y.
Up-To-Date Tool Co., Waltham, Mass.
Valley City—Gallmeyer & Livingston Co., Grand Rapids, Mich.
Walker, O. S., & Co., Worcester, Mass.

GRINDERS, CAR BRASS AND RADIATOR.

The Tanite Co., Stroudsburg, Pa.
Springfield Mfg. Co., The, Bridgeport, Conn.

GRINDERS, CASTING, HEAVY DUTY.

Grand Rapids—Gallmeyer & Livingston Co., Grand Rapids, Mich.
Jarecki Machine & Tool Co., Grand Rapids, Mich.
Black & Decker Mfg. Co., The, Towson, Md. "Marschke."

GRINDERS, CENTRE.

American—Diamond Machine Co., Providence, R. I.
Builders' Iron Foundry, Providence, R. I.
Coates—Coates Clipper Mfg. Co., Worcester, Mass.
Ideal—Neil & Smith Electric Tool Co., The, Cincinnati, O.
Luther Grinder Mfg. Co., Milwaukee, Wis.
Mueller Machine Tool Co., Cincinnati O.
Niles-Bement-Pond Co., New York.
Pioneer—Louisville Electric Mfg. Co., Louisville, Ky.
Standard Electric Tool Co., Cincinnati, O.
U. S. Electrical Tool Co., Cincinnati, O.
Willey—Jas. Clark, Jr., Electric Co, Louisville, Ky.

GRINDERS, CENTERLESS.

Cincinnati Milling Machine Co., Cincinnati, O.
Detroit—Detroit Machine Tool Co., Detroit, Mich.
Heim Grinder Company, The, Danbury, Conn.
Hisey-Wolf Machine Co., Cincinnati, O.
Luther Grinder Mfg. Co., Milwaukee, Wis.
Sanford—F. C. Sanford Mfg. Co., Bridgeport, Conn.

GRINDERS, CHASER.

Cox & Sons Co., The, Bridgeton, N. J.
Geometric—Geometric Tool Co., New Haven, Conn.
Landis Machine Tool Co., Waynesboro, Pa.
Modern (Wallace Patent)—Consolidated Machine Tool Co. of America, New York, N. Y.
Namco—National Acme Co., The, Cleveland, O.

GRINDERS, CHISEL.

Blackhawk Mfg. Co., Milwaukee, Wis.
Luther Grinder Co., Milwaukee, Wis.
Millers Falls Co., Millers Falls, Mass.
Stearns, E. C., & Co., Syracuse, N. Y.

GRINDERS, COCK.

Bardons & Oliver, Cleveland, O.
Milwaukee Cock Grinding Machine Co., Milwaukee, Wis.
Warner & Swasey Co., Cleveland, O.

GRINDERS, COMMUTATOR TRUING.

Jordan—Jordan Bros., Inc., New York, N. Y
Martindale Electric Co., The, Cleveland, Ohio.
Shafer-Decker Co., Rochester, N. Y.

GRINDERS, CRANKSHAFT.

Cincinnati Grinder Co., Cincinnati, O.
Landis Tool Co., Waynesboro, Pa.
McDonough Mfg. Co., Eau Claire, Wis.

GRINDERS, CUTTER AND REAMER.

Barnes—Wm. O. Barnes, Leominster, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cincinnati Gear Cutting Machine Co., The, Cincinnati, O.
Cincinnati Milling Mach. Co., Cincinnati, O.
Fenn Mfg. Co., Hartford, Conn.
Fischer—Fischer Machine Works, Philadelphia, Pa.
Gem—Gem Mfg. Co., Pittsburgh, Pa.
Gould & Eberhardt, Newark, N. J.
Grand Rapids—Gallmeyer & Livingston Co., Grand Rapids, Mich.
Greenfield Tap & Die Corp., Greenfield, Mass.
Harris Automatic—Harris Engineering Co., Bridgeport, Conn.
Ingersoll Milling Machine Co., The, Rockford, Ill.
Keller Mechanical Engineering Corp., Brooklyn, N. Y.
Landis Tool Co., Waynesboro, Pa.
Le Blond, R. K., Machine Tool Co., Cincinnati, O.
Luther Grinder Mfg. Co., Milwaukee, Wis.
Modern—Consolidated Machine Tool Corp. of America, New York, N. Y.
Niles-Bement-Pond Co., New York.
Norton—Norton Co., Worcester, Mass.
Ohio—Oesterlein Machine Co., The, Cincinnati, O.
Reed-Prentice Corp., Worcester, Mass.
Rivett Lathe Mfg. Co., Boston, Mass.
Robbins, Gamwell & Co., Pittsfield, Mass.
Sterling Universal—McDonough Mfg. Co., Eau Claire, Wis.

GRINDERS, CYLINDER.

Cincinnati Grinder Co., Cincinnati, O.
Gisholt Machine Co., Madison, Wis. (Trade names—Du-All, Madison.)
Greenfield—Greenfield Tap & Die Corp., Greenfield, Mass.
Landis Tool Co., Waynesboro, Pa.
Manning, Maxwell & Moore, Inc., New York, N. Y.
Sanford—F. C. Sanford Mfg. Co., Bridgeport, Conn.
Schmidt—Micro Machine Co., Bettendorf, Iowa.
Whitney, Baxter D., & Son., Inc., Winchendon, Mass.

GRINDERS, CYLINDRICAL.

Arter Grinding Machine Co., The, Worcester, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cincinnati Milling Machine Co., Cincinnati, O.
Detroit Centerless—Detroit Machine Tool Co., Detroit, Mich.
Fraser—Warren F. Fraser Co., Westboro, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Hisey—Hisey-Wolf Machine Co., The, Cincinnati, O.
Landis—Landis Tool Co., Waynesboro, Pa.
McDonough Mfg. Co., Eau Claire, Wis.
Modern—Consolidated Machine Tool Corp. of America, New York, N. Y.
Queen City—Queen City Machine Tool Co., Cincinnati, O.

GRINDERS, DIE AND GAGE.

Blake & Johnson Co., Waterbury, Conn.
Geometric—The Geometric Tool Co., New Haven, Conn.
Springfield—The Springfield Mfg. Co., Bridgeport, Conn.
Standard Elec. Tool Co., The, Cincinnati, Ohio.
U. S. Electrical Tool Co., The, Cincinnati, Ohio.

GRINDERS, DISC.

Badger—Badger Tool Co., Beloit, Wis.
Besly, Charles H., & Co., Chicago, Ill.
Builders' Iron Foundry, Providence, R. I.
Challenge—Challenge Machine Co., Inc., Philadelphia, Pa.
Champion Blower & Forge Co., The, Lancaster, Pa.
Crescent Machine Co., The, Leetonia, O.
Duplex—Walls Sales Corp., New York, N. Y.
Gardner—Gardner Machine Co., Beloit, Wis.
Gorton—Diamond Machine Co., Providence, R. I.
Hoysradt & Case, Kingston, N. Y.
Niles-Bement-Pond Co., New York, N. Y.
Rowbottom Machine Co., Waterbury, Conn.
Sellew Machine Tool Co., Pawtucket, R. I.
United States Electrical Tool Co., The, Cincinnati, O.
Valley City—Gallmeyer & Livingston Co., Grand Rapids, Mich.

GRINDERS, DRILL.

American—LaSalle Tool Co., LaSalle, Ill.
Grand Rapids—Gallmeyer & Livingston Co., Grand Rapids, Mich.
Luther Grinder Mfg. Co., Milwaukee, Wis.
Sellers, Wm., & Co., Inc., Philadelphia, Pa.

GRINDERS, ELECTRIC, BENCH AND FLOOR.
(See also "Grinders, Tool")

Apex Electrical Mfg. Co., Cleveland, Ohio.
Automatic Electric Tool Co., Cincinnati, O.
Azor Motor Mfg. Co., The, Cleveland, O.
Black & Decker Mfg. Co., The, Towson, Md.
Bodine Electric Co., Chicago, Ill.
C. A. W.—Cleveland Armature Works, Inc., Cleveland, O. (floor).
Challenge Machine Co., Philadelphia, Pa.
Champion Blower & Forge Co., The, Lancaster, Pa.
Cincinnati Electrical Tool Co., Cincinnati, Ohio.
Clark, James, Jr., Electric Co., Louisville, Ky. "Willey."
Columbia Mfg. Co., Belleville, Ill.
Dillon—The Dillon Electric Co., Canton, O.
Dumore—Wisconsin Electric Co., Racine, Wis.
Duwell—J. A. Finley Co., Allston, Mass.
Forbes & Myers, Worcester, Mass.
Glow—The Glow Electric Co., Cincinnati, O.
Haskins—R. G. Haskins Co., Chicago, Ill.
Hill-Curtis Co., Kalamazoo, Mich.
Hisey—Hisey-Wolf Machine Co., Cincinnati, Ohio.

Ideal—The Neil & Smith Electric Tool Co., Cincinnati, O.
Janette Mfg. Co., Chicago, Ill.
K. M. E.—Keller Mechanical Engineering Corp., Brooklyn, N. Y. (flexible shaft).
Luther Grinder Mfg. Co., Milwaukee, Wis.
Marshke—The Black & Decker Mfg. Co., Towson, Md.
Marvel—Chicago Pulley & Shafting Co., Chicago, Ill.
O. K.—Marathon Electric Mfg. Co., Wausau, Wis.
Pioneer—Louisville Electric Mfg. Co., Louisville, Ky.
R-V—Arva Stroud, New York, N. Y.
Rochester Electric Products Corp., Rochester, N. Y.
Standard Electric Tool Co., Cincinnati, O.
Temco Electric Motor Co., The, Leipsic, O.
United States Electrical Mfg. Co., Los Angeles, Cal.
U. S. Electrical Tool Co., The, Cincinnati, O.
Van Dorn—Van Dorn Electric Tool Co., Cleveland, O.
Wisconsin Electric Co., Racine, Wis.

GRINDERS, ELECTRIC, FLEXIBLE SHAFT.

Biax—Biax Flexible Shaft Co., New York, N. Y.
Binghamton Flexible Shaft Co., Binghamton, N. Y.
Coates—Coates Clipper Mfg. Co., Worcester, Mass.
Forbes & Myers, Worcester, Mass.
Haskins—R. G. Haskins Co., Chicago, Ill.
Sirianni & Trumbettas Mfg. Co., Carbondale, Pa.
Stewart—Chicago Flexible Shaft Co., Chicago, Ill.
Stow Mfg. Co., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.
White, S. S., Dental Mfg. Co., The, New York, N. Y.

GRINDERS, ELECTRIC, PORTABLE.

Black & Decker Mfg. Co., Towson, Md. (Valve.)
Bodine—Bodine Electric Co., Chicago, Ill.
C. L. P.—The C. L. P. Electric Co., New York, N. Y.
Chicago Pneumatic Tool Co., New York, N. Y. "Little Giant."
Dumore—Wisconsin Electric Co., Racine, Wis.
Electric Blower Co., Boston, Mass.
General Electric Co., Schenectady, N. Y.
Hamilton Beach Hamilton Beach Mfg. Co., Racine, Wis.
Harrington Company, Philadelphia, Pa.
Hergi Mfg. Co., The, Bridgeport, Conn.
Hisey-Wolf Machine Co., Cincinnati, O.
Ideal—Neil & Smith Electric Tool Co., The, Cincinnati, O.
Independent Pneumatic Tool Co., Chicago, Ill.
Kimble Electric Co., Chicago, Ill.
Luther Grinder Mfg. Co., Milwaukee, Wis.
Mall Tool Co., Chicago, Ill. (Flexible Shaft.)
Nordyke & Marmon Co., Indianapolis, Ind.
Peerless—Cincinnati Electrical Tool Co., Cincinnati, O.
Simplex Mfg. Co., Newtonville, Mass.
Speedway—Electro-Magnetic Tool Co., Cicero, Ill.
Standard Electric Tool Co., Cincinnati, O.
Temco—The Temco Electric Motor Co., Leipsic, O.
U. S. Electrical Tool Co., Cincinnati, O.
Van Dorn—Van Dorn Electric Tool Co., Cleveland, O
Willey—Jas. Clark, Jr., Electric Co., Louisville, Ky

GRINDERS, EMERY.

(See "Grinders, Tool.")

GRINDERS, EMERY BAND.

Coats—Coats Machine Tool Co., Inc., New York, N. Y.
Simplex—Walls Sales Corp., New York, N. Y.

GRINDERS, FLEXIBLE SHAFT, BELT DRIVE.

Strand—N. A. Strand & Co., Chicago, Ill.

GRINDERS, GEAR TOOTH.

Garrison—The Garrison Gear Grinder Co., Dayton, Ohio.

GRINDERS, GUIDE BAR.

Springfield Mfg. Co., The, Bridgeport, Conn.
Tanite Co., The, Stroudsburg, Pa.

GRINDERS, HOLE AND FACE.

Diamond—Diamond Machine Co., Providence, R. I.
Springfield Mfg. Co., The, Bridgeport, Conn.

GRINDERS, HYDRAULIC.

Landis—Landis Tool Co., Waynesboro, Pa.

GRINDERS, INTERNAL.

Arter—Arter Grinding Machine Co., The, Worcester, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cincinnati—Cincinnati Grinder Co., Cincinnati, O.
Warren F. Fraser Co., Westboro, Mass. "Fraser."
Greenfield Tap & Die Corp., Greenfield, Mass.
Hisey—Hisey-Wolf Machine Co., The, Cincinnati, O.
Landis Tool Co., Waynesboro, Pa.
Luther Grinder Mfg. Co., Milwaukee, Wis.
Micro—Micro Machine Co., Bettendorf, Iowa.
Modern (Wallace Patent)—Consolidated Machine Tool Corp. of America, New York, N. Y.
Rivett Lathe & Grinder Corporation, Brighton, District of Boston, Mass.
Standard Electric Tool Co., Cincinnati, O.
Sundstrand—Sundstrand Machine Tool Co., Rockford, Ill.
U. S. Electrical Tool Co., Cincinnati, O.
Van Norman Machine Tool Co., Springfield, Mass.

GRINDERS, KNIFE.

Blackhawk Mfg. Co., Milwaukee, Wis.
Coe Mfg. Co., The, Painesville, Ohio.
Eagle—Rogers Eagle Machine Wks., Buffalo, N. Y.
Hisey-Wolf Machine Co., Cincinnati, O.
Kline, Lewis T., Alpena, Mich.
Machinery Co. of America, Big Rapids, Mich.
Mummert-Dixon Co., Hanover, Pa.
Rogers-Buffalo—S. C. Rogers & Co., Buffalo, N. Y.
Rowbottom Machine Co., Waterbury, Conn.
Springfield Mfg. Co., Bridgeport, Conn.
Stockbridge Machine Co., Worcester, Mass. "Quicksharp."
Tinker, F., & Sons, Co., Pittsburgh, Pa.
United States Electrical Tool Co., The, Cincinnati, O.
Woods, S. A., Machine Co., Boston, Mass.

GRINDERS, LAWN MOWER.

Ideal, Peerless—Fate-Root-Heath Co., Plymouth, O.
Luther Grinder Co., Milwaukee, Wis.

GRINDERS, OILSTONE.

Mummert-Dixon Co., Hanover, Pa.

GRINDERS, PARALLEL OR ANGLE PLATE.

Hisey—Hisey-Wolf Machine Co., Cincinnati, O.
United States Electrical Tool Co., The, Cincinnati, O.

GRINDERS, PATTERNMAKERS.

Gardner Machine Co., Beloit, Wis.
Luther Grinder Mfg. Co., Milwaukee, Wis.

GRINDERS, PISTON, GAP, AND BALL RACE.

Gridley—The National Acme Co., Cleveland, O.
Landis—Landis Tool Co., Waynesboro, Pa.

GRINDERS, PISTON RING.

Arter—Arter Grinding Machine Co., The, Worcester, Mass.
Gridley—The National Acme Co., Cleveland, O.
Walker, O. S., Co., Worcester, Mass.

GRINDERS, PNEUMATIC.

(See "Tools, Pneumatic.")

GRINDERS, PULLEY.

Graham Mfg. Co., The, Providence, R. I.

GRINDERS, RADIAL.

Mummert-Dixon Co., Hanover, Pa.
Rivett Lathe & Grinder Co., Brighton Dist. of Boston, Mass.
United States Electrical Tool Co., The, Cincinnati, O.

GRINDERS, RADIATOR.

Mummert-Dixon Co., Hanover, Pa.

GRINDERS, RING WHEEL.

Arter Grinding Machine Co., The, Worcester, Mass.
Charles H. Besley & Co., Chicago, Ill. "Besley."

GRINDERS, ROLL.

Harrington Company, Philadelphia, Pa.
Hisey—Hisey-Wolf Machine Co., The, Cincinnati, O.
Ideal—Neil & Smith Electric Tool Co., The, Cincinnati, O.
Landis—Landis Tool Co., Waynesboro, Pa.
Nordyke & Marmon, Inc., Indianapolis, Ind.
Reeves Pulley Co., Columbus, Ind.
Springfield Mfg. Co., The, Bridgeport, Conn.

GRINDERS, SURFACE.

Arter Grinding Machine Co., The, Worcester, Mass.
Abrasive Machine Tool Co., E. Providence, R. I.
Badger Tool Co., Beloit, Wis.
Besly, Charles H., & Co., Chicago, Ill.
Blake & Johnson Co., Waterbury, Conn.
Blanchard Machine Co., Cambridge, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cady, C. N. Co., Canastota, N. Y.
Challenge—Challenge Machine Co., Inc., Philadelphia, Pa.
Cincinnati Grinder Co., Cincinnati, O.
Columbia Mfg. Co., Belleville, Ill. "Crescent."
Diamond Machine Co., Providence, R. I.
Fraser—Warren F. Fraser Co., Westboro, Mass.
Gardner Machine Co., Beloit, Wis.

Hawes, C. L., Ashtabula, Ohio.
Hisey—Hisey-Wolf Machine Co., Cincinnati, Ohio.
Jarecki Machine & Tool Co., Grand Rapids, Mich.
La Salle Micrometer—La Salle Tool Co., La Salle, Ill.
La Salle Tool Co., La Salle, Ill., "Handy Andy," "Master Mechanic."
New Britain Machine Co., New Britain, Conn. "Saxon."
Osterholm—Williams, White & Co., Moline, Ill.
Porter-Cable Machine Co., Syracuse, N. Y.
Reid Bros. Co., Inc., Beverly, Mass.
Springfield Mfg. Co., The, Bridgeport, Conn.
Standard Elec. Tool Co., The, Cincinnati, Ohio.
Sundstrand—Sundstrand Machine Tool Co., Rockford, Ill. (portable).
U. S. Electrical Tool Co., Cincinanti, O.
Valley City—Gallmeyer & Livingston Co., Grand Rapids, Mich.
Walker, O. S., Co., Worcester, Mass.
Willey—Jas. Clark, Jr., Electric Co., Inc., Louisville, Ky.

GRINDERS, SWING FRAME.

Black & Decker Mfg. Co., The, Towson, Md. "Marschke."
Excelsior Tool & Machine Co., East St. Louis, Ill.
Nicholson—W. H. Nicholson & Co., Wilkes-Barre, Pa.
Pittsburgh Grinding Wheel Co., Rochester, Pa.

GRINDERS, TAP.

Grand Rapids—Gallmeyer & Livingston Co., Grand Rapids, Mich.
Little Giant—Greenfield Tap & Die Corp., Greenfield, Mass.
Threadwell Tool Co., The, Greenfield, Mass.

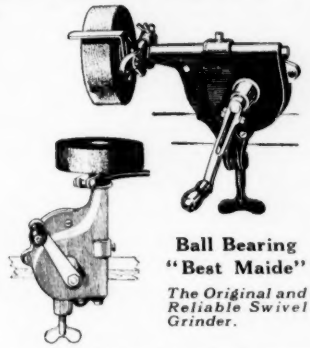
GRINDERS, TOOL.

Athol Machine & Foundry Co., Athol, Mass.
Atkins, E. C., & Co., Indianapolis, Ind.
B. & K.—Bignall & Keeler Mfg. Co., Edwardsville, Ill.
Baird Machine Co., The, Bridgeport, Conn.
Besley, Chas. H., & Co., Chicago, Ill.
Black & Decker Mfg. Co., The, Towson, Md. "Marschke."
Blackhawk Mfg. Co., Milwaukee, Wis. (hand and power).
Blount Co., J. G., Everett, Mass.
Bodine Electric Co., Chicago, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
The Buda Company, Harvey, Ill. "Buda Liberty."
Calder, Geo. H., Lancaster, Pa.
Canedy-Otto—Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Canton Foundry & Machine Co., The, Canton, O.
Challenge Machine Co., Philadelphia, Pa.
Champion Blower & Forge Co., Lancaster, Pa.
Cheney, Royal—S. Cheney & Son, Manlius, N. Y.
Cincinnati Milling Machine Co., The, Cincinnati, O.
Cleveland Stone Co., Cleveland, Ohio.
Conco—H. D. Conkey & Co., Mendota, Ill.
Crescent—Columbia Mfg. Co., Belleville, Ill.
Cyclone—Richards-Wilcox Mfg. Co., Aurora, Ill.
Diamond Machine Co., Providence, R. I.
Dillon—The Dillon Electric Co., Canton, O.
Dumore—Wisconsin Electric Co., Racine, Wis.
Forbes & Myers, Worcester, Mass.
Gallmeyer & Livingston Co., Grand Rapids, Mich.
Gem—Gem Mfg. Co., Pittsburgh, Pa.
Geometric Tool Co., The, New Haven, Conn.
Get-on-the-Job—Chicago Wheel Mfg. Co., Chicago, Ill.
Gisholt—Gisholt Machine Co., Madison, Wis.
Glascock Stove & Mfg. Co., Greensboro, N. C.
Goodell Pratt Co., Greenfield, Mass.
Grant—The Grant Mfg. & Machine Co., Bridgeport, Conn.
Hardinge Bros., Inc., Chicago, Ill.
Helwig Mfg. Co., St. Paul, Minn. (portable pneumatic).
Hemming Bros. Co., The, New Haven, Conn. (cutlery).
Hill-Curtis Co., Kalamazoo, Mich.
Hisey—Hisey-Wolf Machine Co., The, Cincinnati, O. (portable).
Hoysradt & Case, Kingston, N. Y.
Howe Safety Appliance Co., Granite City, Ill.
Imperial, Plymouth, Queen, Standard—Clizbe Bros. Mfg. Co., Plymouth, Ind.
Janette Mfg. Co., Chicago, Ill.
Jones—Huntsville Foundry & Machine Works, Huntsville, Ala.
Keystone Grinder & Mfg., Co., Pittsburg, Pa. (railroad).
Landis Tool Co., Waynesboro, Pa.
La Salle—La Salle Tool Co., La Salle, Ill.
Luther Grinder Co., Milwaukee, Wis. Trade names—Best Maide, Challenge, Dimo Special, Hummer, Mechanics' Special.
Machinery Co. of America, Big Rapids, Mich.

Ball Bearing "Best Maide"
Luther Tool Grinders

Used by:

Schools
Garages
Farmers
Barbers
Surgeons
Factories
Mechanics
Carpenters
Pattern Makers
Forest Service
Cabinet Makers
Granite Workers



Ball Bearing "Best Maide"
The Original and Reliable Swivel Grinder.

ACCURATE work requires high grade equipment. Hand power tool sharpening is done perfectly with ease on a Luther Best Maide Grinder. None made to equal its lasting qualities or construction. The finest edge tools are sharpened easily by unskilled help.

Ball bearing design; tilting frame; helical cut gears; attractive enamel finish.

We sell through Jobbers.

Luther Grinder Mfg. Co.
283A So. Water St. Milwaukee, Wis.

Marschke—The Black & Decker Mfg. Co., Towson, Md.
Marvel—Chicago Pulley & Shafting Co., Chicago, Ill. (ball-bearing).
Modern—Modern Grinder Mfg. Co., Milwaukee, Wis. (hand).
Morse—Morse Twist Drill & Machine Co., New Bedford, Mass.
Mummert-Dixon Co., Hanover, Pa. "Mummert-Dixon Oilstone."
Myers Machine Tool Corp., Columbia, Pa. "Myers."
Niagara—Carborundum Co., Niagara Falls, N. Y (hand and foot power).
Noble & Westbrook Mfg. Co., Hartford, Conn.
Norton—Norton Co., Worcester, Mass.
Oakley—Oakley Machine Tool Co., Middletown, O.
Oesterlein—The Oesterlein Machine Co., Cincinnati, Ohio.
Olmsted's—L. H. Olmsted Mfg. Co., New York, N. Y.
Partridge—E. O. Partridge, Chicago, Ill.
Pittsburgh Grinding Wheel Co., Rochester, Pa. (swing frame).
Prairie du Chien Tool Co., Prairie du Chien, Wis. Trade names—Prairie, Speeder, Sturdibilt.
Pike—Pike Mfg. Co., Pike, N. H.
Ransom Mfg. Co., Oshkosh, Wis.
Reed-Prentice Corp., Worcester, Mass.
Royersford Foundry & Machine Co., Royersford, Pa.
San Francisco Engineering Co., San Francisco, Cal.
Sellers & Co., Inc., William, Philadelphia, Pa.
Simmons—Detroit Emery Wheel Co., Detroit, Mich.
Simmons Machine Co., Inc., Albany, N. Y.
Simplex & Duplex—Walls Sales Corp., New York, N. Y.
Springfield Mfg. Co., The, Bridgeport, Conn.
Star Corundum Wheel Co., Detroit, Mich.
Star Specialty Mfg. Co., Chicago, Ill.
Stearns, E. C., & Co., Syracuse, N. Y.
Success—Buffalo Specialty Co., Buffalo, N. Y.
Success—Samuel C. Rogers & Co., Buffalo, N. Y.
Tanite—The Tanite Co., Stroudsburg, Pa.
Taylor—Tabor Mfg. Co., Philadelphia, Pa.
Taylor & Fenn Co., Hartford, Conn.
Temco—Temco Electric Motor Co., Leipsic, O.
Threadwell Tool Co., The, Greenfield, Mass.
U. S. Electrical Mfg. Co., Los Angeles, Cal.
Van Dorn—Van Dorn Electric Tool Co., Cleveland, O. (Light and heavy duty.)
Walker—Walker, O. S., & Co., Worcester, Mass. (wet).
Wardwell Mfg. Co., Cleveland, O.

Waterbury—The Blake & Johnson Co., Waterbury, Conn.
Western Hardware Mfg. Co., Milwaukee, Wis. (hand power).
Whitney Mfg. Co., Hartford, Conn.
Worcester Pattern & Model Co., Worcester, Mass.
Wright, David A., Chicago, Ill.

GRINDERS, TOOL POST.

Cincinnati Electrical Tool Co., Cincinnati, Ohio.
Chicago Pneumatic Tool Co., New York, N. Y., "Little Giant."
Electro—Electro-Magnetic Tool Co., Cicero, Ill.
Gilbert, J. E., Grinder Co., Milwaukee, Wis.
Hisey—Hisey-Wolf Machine Co., The, Cincinnati, O.
Ideal—Neil & Smith Electric Tool Co., Cincinnati, O.
Luther Grinder Co., Milwaukee, Wis.
Standard Electrical Tool Co., The, Cincinnati, O.
Stow Manufacturing Co., Inc., Binghamton, N. Y. (electric).
Temco Electric Co., The, Leipsic, O. (portable, electric).
United States Electric Tool Co., Cincinnati, O.
Van Dorn Electric Tool Co., Cleveland, Ohio.
Wisconsin Electric Co., Racine, Wis.

GRINDERS, TWIST DRILL.

American—American Grinder Mfg. Co., Milwaukee, Wis.
American—La Salle Tool Co., La Salle, Ill.
American—The Heald Machine Co., Worcester, Mass.
Black & Decker Mfg. Co., Towson, Md.
Blau—Friedrich Neumann's Successor, Inc., New York, N. Y.
Hydroil, Greenfield—Greenfield Tap & Die Corp., Greenfield, Mass.
Luther Grinder Co., Milwaukee, Wis. (hand power).
Oliver of Adrian—Oliver Instrument Co., Adrian, Mich.
Perfection—Bellevue Industrial Furnace Co., Detroit, Mich.
Safety Emery Wheel Co., Springfield, O.
Sellers & Co., Inc., William, Philadelphia, Pa.
Standard—Keystone Grinder & Mfg. Co., Pittsburg, Pa.
Standard Tool Co., Cleveland, O.
Threadwell Tool Co., The, Greenfield, Mass.
Union, Grand Rapids—Gallmeyer & Livingston Co., Grand Rapids, Mich.
Worcester—Washburn Shops, Worcester, Mass.

GRINDERS, UNIVERSAL.

(See "Grinders, Surface," "Grinders, Internal," and "Grinders, Tool.")

Arter Grinding Machine Co., The, Worcester, Mass.
Bath—Universal Grinding Machine Co., Fitchburg, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cincinnati Milling Machine Co., Cincinnati, O.
Fraser—Warren F. Fraser Co., Westboro, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass.
Landis—Landis Tool Co., Waynesboro, Pa.
Manhattan Machine & Tool Works, Grand Rapids, Mich.
McDonough Mfg. Co., Eau Claire, Wis.
Modern (Wallace Patent)—Consolidated Machine Tool Corp. of America, New York, N. Y.
Morse—Morse Twist Drill & Machine Co., New Bedford, Mass
Ohio—The Oesterlein Machine Co., Cincinnati, O
Simmons Machine Co., Inc., Albany, N. Y.
Springfield Mfg. Co., The, Bridgeport, Conn.
T. P.—Taft-Peirce Mfg. Co., Woonsocket, R. I.
Thompson Grinder Co., The, Springfield, O.
United States Electrical Tool Co., The, Cincinnati, O.
Wells—Greenfield Tap & Die Corp., Greenfield, Mass.
Wisconsin—Dauber-Kratsch Co., Oshkosh, Wis.

GRINDERS, VALVE.

Black & Decker Mfg. Co., The, Towson, Md.
Cincinnati—The Cincinnati Electric Tool Co., Cincinnati, O.
Dumore—Wisconsin Electric Co., Racine, Wis.
Fleming—Fleming Machine Co., Worcester, Mass. (valve seat).
Goodell-Pratt Co., Greenfield, Mass.
Mossberg Pressed Steel Corp., Attleboro, Mass.
Sioux—Albertson & Co., Sioux City, Iowa.
Standard Electrical Tool Co., The, Cincinnati, O.
Syracuse Wrench Co., Syracuse, N. Y.
Temco—The Temco Electric Motor Co., Leipsic, O.
U. S. Electrical Tool Co., Cincinnati, O.

GRINDSTONES.

American Foundry & Mfg. Co., St. Louis, Mo.
Aurora Gem, Primus, Marathon, Dandy, Justrite, Star—Aurora Door Hanger & Spec. Co., Aurora, Ill.
Buckeye, Gray—The Ohio Quarries Co., Cleveland, Ohio.
Cleveland Stone Co., Cleveland, O. (loose and mounted). "Cleveland."
Grabo, E. O., Machine Works, Inc., New York, N. Y. (iron frame).
Hoppen—J. E. Hoppen & Sons, Belleville, N. J.
Keystone—Cleveland Stone Co., Cleveland, O.
Marietta Stone Co., Marietta, Ohio (unmounted).
Pike Mfg. Co., Pike, N. H.
Richard-Wilcox—Richard-Wilcox Mfg. Co., Aurora, Ill. (mounted). (Trade names—King, Victor, Invader, Velox, Cycle, Western, Climax, Challenge, Eli, Gentleman, Rural, Mogul, Aurora, Cyclone.)
Waterbury—The Blake & Johnson Co., Waterbury, Conn.

GRIPS, CABLE.

Diamond Machine Co., Monongahela, Pa.
Dicke Tool Co., The, Downers Grove, Ill.
Klein, Mathias, & Sons, Chicago, Ill.
Red Devil—Smith & Hemenway Co., Inc., Irvington, N. J.

GRIPS, FILE, RUBBER.

Filegrip—J. L. Osgood Tool Co., Buffalo, N. Y.

GRIPS, SHOVEL.

Jem—B. B. Specialty Co., Minneapolis, Minn.
Kohler, F. E., Co., The, Canton, O.

GRIPS, WRENCH, FOR PIPE.

Lockhart—R. James Lockhart, Pittsburg, Pa.
New Peerless—Prentiss Vise Co., New York, N. Y.
Standard—Athol Machine & Foundry Co., Athol, Mass.

GUARDS, ELECTRIC LAMP.

Flexible Steel Lacing Co., Chicago, Ill. (Trade names—Flexco, Flexco-Lok.)
General Electric Co., Schenectady, N. Y.
Just Right—Standard Wire Co., New Castle, Pa.
McGill Mfg. Co., Valparaiso, Ind. (Trade names—Bulldog, Crescent, Gripon, Loxon, Mogul, National, Thumb Switch.)
Matthews Holdfast—W. N. Matthews, Inc., St. Louis, Mo.
Steelite—Inland Electric Co., Chicago, Ill.
Safety Fire Extinguisher Co., The, New York.

GUARDS AND SAFETY APPLIANCES, MACHINERY.

Allstele, Howe, Paden, Wiesman—Howe Safety Appliance Co., Granite City, Ill.
American Safety Lamp & Mine Supply Co., Scranton, Pa.
AAA—E. C. Atkins & Co., Indianapolis, Ind. (Saw.)
Barshal Company, Inc., The, Cleveland, Ohio.
Benjamin Electric Mfg. Co., Chicago, Ill. (punch press).
Buffalo Wire Works, Buffalo, N. Y.
Challenge Machine Co., Inc., Philadelphia, Pa.
Cincinnati Shaper Co., The, Cincinnati, O. (press brake). "Cincinnati."
Crescent Machine Co., The, Leetonia, O.
Dexter Metal Mfg. Co., Camden, N. J.
Dodge Mfg. Corp., Mishawaka, Ind.
Erdle Perforating Co., Rochester, N. Y.
Fair Mfg. Co., Racine, Wis. (for shapers).
French—Johnnar Mfg. & Sales Corp., Rochester, N. Y.
General Fireproofing Co., The, Youngstown, O.
Gordon, R. E., Chicago, Ill.
Grammes, L. F., & Sons, Allentown, Pa. (saw).
Gustafson & Scott Mfg. Co., Chicago, Ill. (saw).
H. & A. Lock Co., Brooklyn, N. Y. (press).
Hisey-Wolf Machine Co., Cincinnati, O.
Howard & Morse, New York, N. Y.
Indiana Foundry Co., Indiana, Pa.
Jones Safety—Lockhart-Hodge Co., Inc., Buffalo, N. Y.
Kirk & Blum Mfg. Co., Cincinnati, O.
Knapp—The Knapp Fence Co., Cleveland, O.
Littleford Bros., Cincinnati, Ohio.
Machinery Co. of America, Big Rapids, Mich.
Mining Safety Device Co., The Bowerston, O. (automatic cagers, feeders, also stops for cages and rotary dumps).
No Kick—Atlas Mfg. Co., Orlando, Fla. (saw).
Phoenix Specialty Mfg. Co., New York, N. Y.
Ransom Mfg. Co., Oshkosh, Wis.
Safety Equipment Service Co., The, Cleveland, O.
Shurlock—Pass & Seymour, Syracuse, N. Y.
Simplex—The Atlantic Company, Brooklyn, N. Y.
Smith-Matthews Foundry Co., Detroit, Mich.
Surty Mfg. Co., Inc., The, Chicago, Ill.
Taylor-Shantz Co., Rochester, N. Y. (for punch presses). (Trade names—D. & M., D. & M. Junior.)
Tyler, W. S. Co., The, Cleveland, Ohio.
Vandegrift & Morris, The, Shelbyville, Ind.
Usona Mfg. Co., St. Louis, Mo.
Walsh Press & Die Co., Chicago, Ill. (for presses).
Willcox Engineering Co., Saginaw, Mich.
Woodworkers Tool Works, Chicago, Ill.
Zeiller & Nagel, Brooklyn, N. Y. "Wire Hood," circular saw; "Simplex," shaper.

GUARDS, RIM, FOR SINK.

Clow, James B., & Sons, Chicago, Ill.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.

GUARDS, SPRINKLER HEAD.

Marlboro Wire Goods Co., Marlboro, Mass.

GUIDES, FLUSH VALVE.

Leader—Leader Specialty Co., Inc., Indianapolis, Ind.

GUIDES, SAW.

American—American Saw Mill Machy. Co., Hackettstown, N. J.
Atkins, E. C., & Co., Indianapolis, Ind.
Black Diamond, Wright—Black Diamond Saw & Machine Works, (ball bearing band), Natick, Mass.
B. T. & B.—Machinery Co. of America, Big Rapids, Mich.
Scarbrough Mfg. Co., Chattanooga, Tenn.
Disston, Henry, & Sons, Inc., Philadelphia, Pa.
Miner Saw Mfg., J. H., Meridian, Miss.
Ohlen-Bishop Co., The, Columbus, Ohio.
Phillips Mfg. Co., Orlando, Fla.
Sinker-Davis Co., The, Indianapolis, Ind. "Hoosier."
Standard Saw Mill Machinery Co., Erie, Pa.
Wheland—The Wheland Co., Chattanooga, Tenn.
"Wrights"—Clarke Saw & Machine Works, Newark, N. J.

GUMMERS, SAW.

Adams, W. T., Machine Co., Corinth, Miss.
Ajax Mfg. Co., Pittsburgh, Pa. "I. X. L.," "Mixter Champion," "Standard."
American Woodworking Machinery Co., Rochester N. Y.
Atkins, E. C., & Co., Indianapolis, Ind.
Blackmer—Machinery Company of America, Big Rapids, Mich.
Champion Blower & Forge Co., The, Lancaster, Pa.
Clizbe Bros. Mfg. Co., Plymouth, Ind. "Crown."
Diamond Machine Co., Providence, R. I.
Disston, Henry, & Sons, Tacony, Philadelphia, Pa
Goodrich Grinding Wheel Co., Chicago, Ill.
Henderson, W. K., Iron Works & Supply Co., Shreveport, La.
Hoe, R., & Co., New York.
Moak Machine and Supply Co., Port Huron, Mich.
Mummert-Dixon Co., Hanover, Pa.
Northampton Emery Wheel Co., Leeds, Mass.
Ohlen-Bishop Co., The, Columbus, Ohio.
Rogers-Buffalo—Samuel C. Rogers & Co., Buffalo, N. Y.
Simonds Saw & Steel Co., Fitchburg, Mass.
Southern Saw Works, Atlanta, Ga.

GUNS, CEMENT.

Cement-Gun—Cement Gun Co., Inc., Allentown, Pa.
Chicago Pneumatic Tool Co., New York, N. Y.

GUNPOWDER.

(See "Explosives.")

GUNS, CONCRETE AND RIVET CUTTING.

Cincinnati—Rivet Cutting Gun Co., Cincinnati, O.

GUNS, GREASE AND OIL.

Agner, R. C., Burlington, Wis.
All-Way—Famasco Distributing Co., Buffalo, N. Y.
American Lubricator Co., Detroit, Mich.
Balcrank—The Cincinnati Ball Crank Co., Cincinnati, O.
Bond Foundry & Machine Co., Manheim, Pa.
Boston, Copley—The Randall-Faichney Co., Boston, Mass.
Bridgeport Brass Co., Bridgeport, Conn.
Ekern-Turk Mfg. Co., Inc., Pipestone, Minn. (garage).
Essex Brass Corp., Detroit, Mich.
Hancock Mfg. Co., Charlotte, Mich.
Hunter—Hunter Pressed Steel Co., Lansdale, Pa.
Judd & Leland Mfg. Co., Clifton Springs, N. Y.
Kellogg Mfg. Co., Rochester, N. Y.
Knapp Mfg. & Supply Co., New York, N. Y.
Manco—Mann Corporation, Kankakee, Ill.
Noera Mfg. Co., The, Waterbury, Conn.
Osborne & Stephenson Mfg. Co., Plainville, Conn.
Rose, Frank, Mfg. Co., Hastings, Neb. "Rose."
Royersford Foundry & Machine Co., Royersford, Pa.
Sanford-Day Iron Works, Knoxville, Tenn.
Shere Metal Products Corp., Oakland, Calif.

GUNS, GREASE AND OIL, HIGH PRESSURE SYSTEMS.

Adams Grease Gun Corp., New York, N. Y.
Bassick Mfg. Co., The, Chicago, Ill. "Alemite," "Zerk Alemite."
Balcrank—The Cincinnati Ball Crank Co., Cincinnati, O.
Dot—The Carr Fastener Co., Cambridge, Mass.
Robertson, Wm., & Son, Chicago, Ill. (Trade names—Jiffy, Self-Aligning, Standard.)
Rose, Frank, Mfg. Co., Hastings, Neb.
Saal—H. G. Saal Co., Chicago, Ill.

GUNS, PAINT.

(See "Machines and Equipment, Painting.")

GUNS, RIVET PASSING.

Penflex—Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.

GUNS, SANDBLAST.

Ruenelin Mfg. Co., Minneapolis, Minn. "Midget and Giant."

HAMMERS, BLACKSMITHS' AND HORSESHOERS'.

Billings & Spencer Co., The, Hartford, Conn.
Blacker Engineering Co., Inc., New York, N. Y.
Champion-De Arment Tool Co., Meadville, Pa.
Cheney—Cheney Hammer Div. of the Prentiss Vise Co., Little Falls, N. Y.
Fisher & Norris, Trenton, N. J.
Heller Bros. Co., Newark, N. J.
Horseshoe—The Stanley Works, Atha Dept., New Britain, Conn.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Maydole—The David Maydole Hammer Co., Norwich, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Plumb—Fayette R. Plumb, Inc., Philadelphia, Pa.
Quickwerk—The Warren Tool & Forge Co., Warren, O.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Verona Tool Works, Pittsburgh, Pa.

HAMMERS, BRACKET.

Dienelt & Eisenhardt, Inc., Philadelphia, Pa.

HAMMERS, BRASS.

Goodell-Pratt Co., Greenfield, Mass.

HAMMERS, BRICKLAYERS, PATTERNMAKERS, PROSPECTING, TILESETTERS.

B. M. Co.—Braunsdorf-Mueller Co., Elizabeth, N. J.
Cheney—Cheney Hammer Div. of the Prentiss Vise Co., Little Falls, N. Y.
Duffy Manufacturing Co., Chicago, Ill.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Maydole—The David Maydole Hammer Co., Norwich, N. Y.
Vulcan—Vulcan Tool Mfg. Co., Quincy, Mass.

HAMMERS, CALKING.

American Saw & Tool Works, Chicago, Ill.
Anderson, W. H., Tool & Supply Co., Detroit, Mich.
Dayton, Green—Dayton Pneumatic Tool Co., Dayton, O.
Helwig—Helwig Mfg. Co., St. Paul, Minn.
Ingersoll-Rand Co., New York.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Mueller Co., Decatur, Ill.
National Tool Co., New York, N. Y.
Pollard, Jos. G., Co., Inc., Brooklyn, N. Y.
Horseshoe—Stanley Rule & Level Works, Atha Dept., New Britain, Conn.

HAMMERS, CARPENTERS'.

Arcade Mfg. Co., Freeport, Ill.
Billings & Spencer Co., Hartford, Conn.
Champion-De Arment Tool Co., Meadville, Pa.
Cheney—Cheney Hammer Div. of the Prentiss Vise Co., Little Falls, N. Y.
Clipper Hi-Carbon—Clipper Tool Co., Buffalo, N. Y.
Collins Co., The, Collinsville, Conn.
Gray Iron Foundry Co., Reading, Pa.
(G. T. W.)—Griffith Tool Works, Philadelphia, Pa.
Hammond, C. & Son, Ogontz, Pa.
Heller Shock Absorber—Heller Bros. Co., Newark, N. J.
Horseshoe—The Stanley Works, Atha Dept., New Britain, Conn.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Johnson, Wm., Firm of, Newark, N. J.
Falls City—Kelly Axe Mfg. Co., Charleston, W. Va.
Maydole—The David Maydole Hammer Co., Norwich, N. Y.
Milwaukee Tool & Forge Co., Milwaukee, Wis.
Pexto—Peck, Stow & Wilcox Co., Southington, Conn.
Plumb, Fayette R., Inc., Philadelphia, Pa.
Smith & Hemenway Co., Irvington, N. J.
Southington Mfg. Co., Southington, Conn.
Stover Mfg. Co., Freeport, Ill.
Tool Co., T. & H., The, Elyria, Ohio. "Woodpecker."
Unbreakable—Estwing Mfg. Co., Rockford, Ill.
V. & B., Garden City—Vaughn & Bushnell Mfg. Co., Chicago, Ill.

HAMMERS, CHIPPING.

Cheney—Cheney Hammer Div. of the Prentiss Vise Co., Little Falls, N. Y.
Dayton Pneumatic Tool Co., The, Dayton, O. (Trade names—Dayton, Greater Dayton, Green.)
Heller Bros. Co., Newark, N. J.
Ingersoll-Rand Co., New York.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.

HAMMERS, COPPER.

Clendenin Bros., Inc., Baltimore, Md.
Graham, James & Co., New Haven, Conn.
Hungerford, U. T., Brass & Copper Co., New York.
Marnot—National Alloys Co., Detroit, Mich.
Millers Falls Co., Millers Falls, Mass.
New Tip—The Bilton Machine Tool Co., Bridgeport, Conn.
Richardson, Edro, Brass Co., Baltimore, Md. (cast).
Seattle Brass Co., Seattle, Wash.
Williams—E. A. Williams & Son, Inc., Jersey City, N. J.

HAMMERS, DROP, BOARD.

Chambersburg Engineering Co., Chambersburg, Pa.
Massillon Foundry & Machine Co., The, Massillon, O.
United Engineering & Foundry Co., Pittsburgh, Pa.

HAMMERS, ELECTRIC.

Ajax Electric Hammer Corp., New York, N. Y.
The Black & Decker Co., Towson, Md.
Electric Hammer Corp., Louisville, Ky.
Electric Utilities Co., Louisville, Ky.
Electro-Magnetic Tool Co., Cicero, Ill. "Speedway."
The Fermot Company, New York, N. Y. "Simbi."
Pneumelectric Corp., Syracuse, N. Y.
Syntron Company, Homewood, Pa.
Wodack—F. L. Rogers & Co., Chicago, Ill.

HAMMERS, FACING & FURROW.

Higgins, John C., Chicago, Ill.

HAMMERS, FIBRE FACED.

Oliver Mfg. Co., W. W., Buffalo, N. Y.

HAMMERS, HARDENING.

American Gas Furnace Co., Elizabeth, N. J.

HAMMERS, LEAD FACE.

(See also "Moulds, Lead Hammer.")

Husky Wrench Co., Milwaukee, Wis. "Husky."
M. M. W., Maywood Dumbell—Maywood Machine Works, Inc., Maywood, Ill.
National Tool Co., New York, N. Y.
New Tip—Bilton Machine Tool Co., The, Bridgeport, Conn.
Victor—Victor Products Corp., Chicago, Ill.

HAMMERS, MACHINISTS'.

B. & S.—The Billings & Spencer Co., Hartford, Conn
Always Reliable—Otto Bernz Co., Inc., Newark, N. J.
Buffum Tool Co., Louisiana, Mo.
Cheney—Cheney Hammer Div. of the Prentiss Vise Co., Little Falls, N. Y.
Clipper—Clipper Tool Co., Buffalo, N. Y.
Goodell-Pratt Co., Greenfield, Mass.
Hammond, C., & Son, Ogontz, Pa.
Heller Bros.—Heller Bros. Co., Newark, N. J.
Herbrand Co., The, Fremont, O.
Horseshoe—The Stanley Works, Atha Dept., New Britain, Conn.
Klein-Logan Co. The, Pittsburgh, Pa.
McKaig-Hatch, Inc., Buffalo, N. Y.
Maydole—The David Maydole Hammer Co., Norwich, N. Y.
Peck, Stow & Wilcox Co., The, Southington, Conn.
Perfect Handle—The H. D. Smith & Co., Plantsville, Conn
Plumb—Fayette R. Plumb, Inc., Philadelphia, Pa.
Quikwerk—Warren Tool & Forge Co., Warren, O.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Verona Tool Works, Pittsburgh, Pa.
Vichek Tool Co., The, Cleveland, O.

HAMMERS, MAGNETIC.

Sayre, L. A., Co., Newark, N. J.

HAMMERS, MALLETS AND MAULS, RAWHIDE.

Chicago Rawhide Mfg. Co., Chicago, Ill.
Colvin—Greene, Tweed & Co., New York, N. Y.
Holbrook Raw Hide Co., Providence, R. I.

HAMMERS, PNEUMATIC.

(See also "Tools, Pneumatic.")

Barr, H. Edsil, Erie, Pa. "Barr."
Canton Pneumatic Tool Co., The, Canton, O.
Champion, Green and New Dayton—Dayton Pneumatic Tool Co., Dayton, O.
Chicago Pneumatic Tool Co., New York, N. Y. "Boyer," "Boyer-Keller," "Boyer-Superior, "Oldham."
Helwig—Helwig Mfg. Co., St. Paul, Minn.
Master—Wm. H. Keller, Inc., Grand Haven, Mich.
Molybdenum—King Pneumatic Tool Co., Chicago, Ill.
Nazel—Nazel Engineering & Machine Works, Philadelphia, Pa.

HAMMERS, POWER, BELT AND MOTOR DRIVEN.

Beaudry, Champion—Beaudry & Co., Inc., Boston, Mass.
Blacker Engineering Co., Inc., New York, N. Y.
Bradley, C. C., & Son, Syracuse, N. Y.
Dupont—United Hammer Co., Boston, Mass.
Hammer Blow Tool Co., Wausau, Wis.
Hercules—Champion Blower & Forge Co., Lancaster, Pa.
Kane & Roach, Syracuse, N. Y.
Kidder, R. E., Co., Worcester, Mass.
Little Giant Co., Mankato, Minn.
Massillon—Massillon Foundry & Machine Co., Massillon, O.
Nazel Engineering & Machine Works, Philadelphia, Pa.
Quickwork—The Quickwork Co., St. Marys, O.
Star Foundry Co., Albert Lea, Minn.
Toledo Machine & Tool Co., Toledo, O.

HAMMERS, POWER, DROP.

Beaudry—Beaudry & Co., Inc., Boston, Mass.
Belden Machine Co., The, New Haven, Conn.
Bell—Buffalo Foundry & Machine Co., Buffalo, N. Y
Bliss—E. W. Bliss & Co., Brooklyn, N. Y.
Boss—Novelty Iron Wks., Dyersville, Ia.
B. & S.—The Billings & Spencer Co., Hartford, Conn
Buckeye Engine Co., Salem, O.
Chambersburg Eng. Co., Chambersburg, Pa.
Cleveland Punch & Shear Works, Cleveland, O.
Dienelt & Eisenhardt, Inc., Philadelphia, Pa.
Erie—Erie Foundry Co., Erie, Pa.
Gould & Eberhardt, Newark, N. J.
Justice—Phillip S. Justice & Co., Philadelphia, Pa
Kerrihard Co., Red Oak, Ia.
Massillon Foundry & Machine Co., Massillon, O
Merrill Bros., Maspeth, N. Y.
Merriman—Meriden Press & Drop Co., The, Meriden, Conn.
Moloch Company, Kaukauna, Wis. "Mayer."
Morgan Engineering Co., Alliance, O.
Nazel—Nazel Engineering & Machine Works, Philadelphia.
Niles-Bement-Pond Co., New York, N. Y.
The Peck Drop—Miner & Peck Mfg. Co., Derby, Conn.
San Francisco Engineering Co., San Francisco, Cal
Standard Machinery Co., Providence, R. I.
Toledo Machine & Tool Co., Toledo, O.
United Engineering & Foundry Co., Pittsburg, Pa.
Williams, White & Co., Moline, Ill.
Wood, Wm. H., Media, Pa.

HAMMERS, POWER, HELVE.

Armstrong Mfg. Co., Waterloo, Ia.
Bradley—C. C. Bradley & Son, Syracuse, N. Y.
Chambersburg Engineering Co., Chambersburg, Pa
High Speed Hammer Co., Rochester, N. Y.
Kerrihard Co., Red Oak, Iowa.
Niles, Bement & Pond Co., New York, N. Y.
Rochester—The West Tire Setter Co., Rochester, N. Y
United Hammer Co., Boston, Mass.

HAMMERS, RIVETING.

Always Reliable—Otto Bernz Co., Inc., Newark, N. J
Buffum Tool Co., Louisiana, Mo.
Champion-De Arment Tool Co., Meadville, Pa.
Cheney—Cheney Hammer Div. of the Prentiss Vise Co., Little Falls, N. Y.
Dayton Pneumatic Tool Co., The, Dayton, O. (Trade names—Dayton, Green, New Dayton.)
Hammond, C., & Son, Ogontz, Pa.
Heller Bros. Co., Newark, N. J. (tinners').
Helwig—Helwig Mfg. Co., St. Paul, Minn.
High Speed Hammer Co., Rochester, N. Y.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Keller, Wm. H., Inc., Grand Haven, Mich. "Keller-Master."
Little David—Ingersoll-Rand Co., New York, N. Y.
Maydole—Maydole Hammer Co., The David, Norwich, N. Y.
Pexto—Peck, Stow & Wilcox Co., Southington, Conn.
Plumb—Fayette R. Plumb, Inc., Philadelphia, Pa.
Spinhammer—Pressed Metal Machinery Co., Chicago, Ill.
Stanley Rule & Level Plant, New Britain, Conn.
Stover Mfg. Co., Freeport, Ill.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Verona Tool Works, Pittsburgh, Pa.
Vichek Tool Co., Cleveland, O.

HAMMERS, SAW MAKERS'.

Arm & Hammer—The Columbus Anvil & Forging Co., Columbus, Ohio.
Atkins, E. C., & Co., Indianapolis, Ind.
Machinery Company of America, Big Rapids, Mich.

HAMMERS, STEAM.

Alliance Machine Co., Alliance, O.
Bell—Buffalo Foundry & Machine Co., The, Buffalo.
Blacker Engineering Co., Inc., New York, N. Y.
Chambersburg Engineering Co., Chambersburg, Pa.
Dudgeon, Richard, New York, N. Y.
Elmes Engineering Works, Chas. F., Chicago, Ill.
Erie—Erie Foundry Co., Erie, Pa.
Industrial Works, Bay City, Mich.
Massillon—Massillon Foundry & Machine Co., Massillon, O.
Morgan Engineering Co., Alliance, O.
National Hoisting Engine Co., Harrison, N. J.
Nazel—Nazel Engineering & Machine Works, Philadelphia, Pa.
Niles-Bement-Pond Co., New York, N. Y.
Sellers & Co., Inc., William, Philadelphia, Pa.
Toledo Machine & Tool Co., Toledo, O.

HAMMERS, TINNERS.'

Cheney—Cheney Hammer Div. of the Prentiss Vise Co., Little Falls, N. Y.
Heller Bros. Co., Newark, N. J.
Maydole—The David Maydole Hammer Co., Norwich, N. Y.
Plumb—Fayette R. Plumb, Inc., Philadelphia, Pa.
Stanley Rule & Level Plant, New Britain, Conn.

HAMMERS, UPHOLSTERERS'.

Johnson, Wm., Firm of, Newark, N. J.
Sayre, L. A., & Son, Newark, N. J.
Stanley Rule & Level Works, New Britain, Conn.

HAND SCREWS.

(See "Screws, Hand.")

HANDLES, AXE, HAMMER, SHOVEL, ETC.

Baldwin Tool Works, Parkersburg, W. Va. (Hoe, fork and shovel). "Baldwin."
Gray, D. W., Co., Inc., New York, N. Y.
Hartwell Bros., Co., Chicago Heights, Ill.
Hasco—H. A. Stiles & Co., Boston, Mass.
Hoosier Metal Products, Inc., Columbus, Ind.
Moore Bros., Jamestown, N. Y.
National Handle Co., Frankfort, Ind.
New York Wheelbarrow Co., New York, N. Y.
North American Handle Co., Boston, Mass.
Piqua Handle & Mfg. Co., Piqua, O.
Sturd-E Steel D—Columbus Handle & Tool Corp., Columbus, Ind.
Turner, Day & Woolworth Handle Co., Louisville, Ky. (Trade names—American Beauty, Beauty, Daisy, Daniel Boone, Eagle, Hercules, Peerless, Perfection, Royal Oak, Success, Sunflower, Triumph.)
Warren, Axe & Tool Co., Warren, Pa.
Zimmerman Mfg. Co., Owosso, Mich. (axe, sledge, etc.)

HANDLES, BALANCE, CRANK.

The Cincinnati Ball Crank Co., Cincinnati, O.
Vulcan—J. H. Williams & Co., Buffalo, N. Y.

HANDLES, BASIN AND BATH COCK.

Avco—Alliance Vitreous China Co., The, Alliance, O.
Burlington Brass Works, Burlington, Wis.
Frank Bros., New York, N. Y.
Hajoca Corporation, Philadelphia, Pa.
Hutter, Karl, Inc., New York, N. Y.
Maddock's, Thos., Sons, Co., Trenton, N. J.

HANDLES, DROP, BOX AND BARREL.

Mullins Body Corp., Stamping Dept. A, Salem, O.

HANDLES, FILE, CHISEL, ETC.

Allen, Chas. I., Pequabuck, Conn.
Auburn Handle Co., Auburn, Ind.
Buck Bros., Millbury, Mass.
Buckeye Belting & Supply Co., The, Cleveland, Ohio. "Nol Vex."
Buffum Tool Co., Louisiana, Mo.
Bullock Mfg. Associates, Springfield, Mass.
Chapin-Stephens Co., The, Pine Meadow, Conn.
Delaware Hard Fibre Co., Wilmington, Del.
Diamond State Fibre Co., Bridgeport, Pa.
Doctor—Doane Mfg. Co., Boston, Mass.
Estes, E. B., & Sons, New York, N. Y.
Grover—Grover File Co., The, Nashua, N. H.
Hartwell Handle Co., Harvey, Ill.
Hasco—H. A. Stiles & Co., Boston, Mass.
Hy-Tools, Inc., Buffalo, N. Y. "Can't Split."
Indestructible—J. L. Osgood Tool Co., Buffalo.
Kaalot—Kaalot Mfg. Co., Chicago, Ill. (paper).
Lutz—Lutz File Co., Cincinnati, Ohio.
Millers Falls Co., Millers Falls, Mass.
Moore Bros., Jamestown, N. Y.
Narragansett Machine Co., Providence, R. I.
Nestor Mfg. Co., Inc., New York, N. Y. (metal).
Novelty Turning Co., Norway, Me. (hickory).
Peck, Stow & Wilcox Co., Southington, Conn.
Peterson, F. W. Co., New York, N. Y.
Piqua Handle & Mfg. Co., Piqua, O.
Reading Wood Pulley Co., Reading, Pa. "Reading."
Robinson, M. W., Co., New York, N. Y. "Lock Jaw," "Rollis."
Rowe, Henry, Mfg. Co., Newaygo, Mich.
Sandusky—Sandusky Tool Corp., Sandusky, O.
Simonds Saw & Steel Co., Fitchburg, Mass.
Skroo-Zon—Safety Handle Co., Stockton, Cal.
Stearns & Co., E. C., Syracuse, N. Y.
Stiles & Co., H. A., Boston, Mass.
Stratton Mfg. Co., Stratton, Me.
Strombecker Taperfit—Strombeck-Becker Mfg. Co., Moline, Ill.
Swan, James, Co., Seymour, Conn.
Troy-Best—Troy File Works, Troy, N. Y.
Union Hardware Co., Torrington, Conn.
White Co., L. & I. J., Buffalo, N. Y.

HANDLES, HYDRANT.

American Foundry & Mfg. Co., St. Louis, Mo.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.

HANDLES, MACHINE.

Balcrank—The Cincinnati Ball Crank Co., Cincinnati, O.
Berger Bros. Co., Philadelphia, Pa. "Berger."
Billings & Spencer Co., The, Hartford, Conn.
Kilborn & Bishop Co., New Haven, Conn.
Meriden Machine Tool Co., Meriden, Conn.
Rockwood Sprinkler Company of Mass., Worcester, Mass.
Vulcan—J. H. Williams & Co., Buffalo, N. Y.

HANDLES, PORTABLE ELECTRIC LAMP.

Martindale Electric Co., The, Cleveland, O. "C. & E."

HANDLES, REST, COMPOUND.

Balcrank—The Cincinnati Ball Crank Co., Cincinnati, O.

HANDLES, SAW.

Atkins—E. C. Atkins & Co., Indianapolis, Ind.
Chapin-Stephens Co., The, Pine Meadow, Conn.
Disston & Sons Co., Henry, Philadelphia, Pa.

HANDLES, VALVE.

(See "Wheels, Valve.")

HANGERS, BEAM AND JOIST.

Lane Bros. Co., Poughkeepsie, N. Y.
Lane—Lane Joist Hanger Co., Baltimore, Md.
Oliver Iron & Steel Corp., Pittsburgh, Pa.

HANGERS, BELT SHIFTER.

Chicago Pulley & Shafting Co., Chicago, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Medart Company, The, St. Louis, Mo.

HANGERS, CLOTHES, SANITARY.

Ideal—Foster Sheet Metal Co., Springfield, Ill.
Union—James H. Channon Mfg. Co., Chicago, Ill.

HANGERS, COLLAR OILING.

Caldwell, H. W. & Son Co., Chicago, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Co., Chicago and Philadelphia, Pa.
Medart Company, The, St. Louis, Mo.

HANGERS, CONDUIT.

Bissell, F., Co., Toledo, O.
Chicago Expansion Bolt Co., Chicago, Ill.

HANGERS, COUNTERSHAFT.

American Tool & Machine Co., Boston, Mass.
Baird Machine Co., The, Bridgeport, Conn
Bantam—Standard Pressed Steel Co., Jenkintown, Pa.
Barry—R. & J. Dick Co., Inc., Passaic, N. J.
Barry—Barry Co., Muscatine, Ia.
Brown, A. & F., Co., The, Elizabethport, N. J.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Keystone—Keystone Pulley Co., Oneida, N. Y.
Medart Company, The, St. Louis, Mo.
Royersford Foundry & Machine Co., Royersford, Pa.
Smith, Winfield H., Springville, Erie Co., N. Y. (small.)

HANGERS, DOOR, AND TRACKS.

Aurora Door Hanger & Specialty Co., Aurora, Ill. (Trade names—Aurora De Luxe, Aurora Rex, Iron Duke, Perfection, Prince, Star, Queen, Victor.)
Chisholm-Moore Mfg. Co., Cleveland, O.
Flexo, 20th Century—Hunt, Helm, Ferris, & Co., Harvard, Ill.
Myers, F. E., & Bro. Co., Ashland, O.

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Richards-Wilcox Mfg. Co., Aurora, Ill.
Stanley Rule & Level Works, New Britain, Conn.
Stowell Co., The, South Milwaukee, Wis.
Wagner Mfg. Co., Cedar Falls, Iowa.

HANGERS, ELEVATOR DOOR.

Richards-Wilcox Mfg. Co., Aurora, Ill.

HANGERS, EXPANSION TANK.

Blue Ribbon—Chicago Nipple Mfg. Co., Chicago, Ill.

HANGERS, FIRE DOOR.

Allith-Prouty Co., Danville, Ill.
Lane Bros. Co., Poughkeepsie, N. Y.
McCabe—The McCabe Hanger Mfg. Co., New York.
Milwaukee—Wm. B. Bolles, Milwaukee, Wis.
Monarch—Richards-Wilcox Mfg. Co., Aurora, Ill.
R.-W.—Richards-Wilcox Mfg. Co., Aurora, Ill.
Vulcan—Aurora Door Hanger & Specialty Co., Aurora, Ill.

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HANGERS AND HARDWARE, GARAGE DOOR.

Aurora Door Hanger Specialty Co., Aurora, Ill.
Cannon-Ball. Comepacked — Hunt-Helm-Ferris & Co., Harvard, Ill.
Corn-B-Wise, R-W, Slyda, Syde, Slidetite—Richards-Wilcox Mfg. Co., Aurora, Ill.
Double, Hummer, Straight-A-Way—J. E. Porter Corp., Ottawa, Ill.
Lane Bros. Co., Poughkeepsie, N. Y.
Stanley Works, The, New Britain, Conn.
Ten Eighty—Allith-Prouty Co., Danville, Ill.

HANGERS, HEAD SHAFT.

Brown, A. & F., The, Elizabethport, N. J.
Dodge Mfg. Corp., Mishawaka, Ind.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jeffrey Mfg. Co., The, Columbus, O.
Link-Belt Company, Chicago and Philadelphia, Pa.
Medart Company, The, St. Louis, Mo.
Wood, T. B., Sons Company, Chambersburg, Pa.

HANGERS, PIPE.

A. B. C.—Fee & Mason Mfg. Co., New York, N. Y.
Adjustable Clips—Rockwood Sprinkler Co. of Mass., Worcester, Mass.
Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Ahlander—Thos. Wrigley Co., Chicago, Ill.
Beaton & Cadwell Mfg. Co., New Britain, Conn.
Berger Bros. Co., Philadelphia, Pa. "Berger."
Bettcher Stamping & Mfg. Co., Cleveland, O.
Blake—Blake & Williams, New York, N. Y.
Blue Ribbon—Chicago Nipple Mfg. Co., Chicago, Ill. (assembled with screw eye.)
Carpenter & Peterson, Boston, Mass.
C.—Crane Co., Chicago, Ill.
Chicago Expansion Bolt Co., Chicago, Ill. (expansion bolt).
Corbin—The Beaton & Corbin Mfg. Co., Southington, Conn.
Crawford Co., Chicago, Ill.
D. A. Donovan, Auburn, N. Y. "Dad."
Fee & Mason Mfg. Co., New York, N. Y. "Astoria," "Beekman," "F. & M."
Fit-All—Consolidated Steel Strapping Co., Chicago, Ill.
Ford & Kendig Co., Philadelphia, Pa.
Grabler—Grabler Mfg. Co., Cleveland, O.
Greenlie-Halliday Co., New York, N. Y.

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Grinnell Company, Providence, R. I.
Guilderland Foundry Co., Guilderland, N. Y.
Hanna Ball Joint—The Penn Engineering Co., Philadelphia, Pa.
Hauer, J. B., Inc., Brooklyn, N. Y.
Heartley Machine, Variety Iron & Tool Works, Toledo, O.
Heide's—Heide & Resek, Bayonne, N. J. (riser).
Hoopes & Townsend Co., Philadelphia, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Kenway—P. N. Kenway, Boston, Mass.
Malleable—Geo. P. McCullom, Muskegon, Mich.
Modern Iron Works, Quincy, Ill. (Plain and gal.)
Modern Mfg. Co., The, Cleveland, O.
National—Thos. Devlin Mfg. Co., Philadelphia, Pa.
Newbury Mfg. Co., Monroe, N. Y.
Orcutt—The Toledo Washer & Stamping Co., Toledo, Ohio.
Pittsburg Valve & Fittings Co., Barberton, O.
Robinson Mfg. Co., The, Cleveland, O.
Russell, W. A., & Co., New York, N. Y.
Steward & Romaine Mfg. Co., Philadelphia, Pa.
Universal—E. Rutzler Co., New York, N. Y.
U.S.E.—United States Expansion Bolt Co., New York, N. Y.
Walworth Company, Boston, Mass.
Washburn Co., The, Wire Goods Co., Div., Worcester, Mass.
Webco—F. W. Webb Mfg. Co., Boston, Mass.
Worcester—Rockwood Sprinkler Co. of Mass., Worcester, Mass.

HANGERS, PIPE, ADJUSTABLE.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American District Steam Co., North Tonawanda, N. Y.
Beaton & Cadwell Mfg. Co., The, New Britain, Conn.
Blue Ribbon—Chicago Nipple Mfg. Co., Chicago, Ill.
C.—Crane Co., Chicago, Ill.
Carpenter & Peterson, Boston, Mass.
Collins Mfg. Co., Pittsburgh, Pa.
Fee & Mason Mfg. Co., New York, N. Y.
Grinnell Company, Providence, R. I.
Hanna Ball Joint—Penn Engineering Co., Philadelphia, Pa.
Kaltenthaler, H. J., Philadelphia, Pa.
Modern Iron Works, Quincy, Ill.
Modern Mfg. Co., The, Cleveland, O.
Morris—T. J. Morris, Springfield, Mass.
Penn—The Penn Engineering Co., Philadelphia, Pa.
Walworth Company, Boston, Mass.

HANGERS, PIPE, BRASS.

Acme Mfg. Co., Bangor, Me.
American Brass & Copper Co., The, New York, N. Y.
Beaton & Cadwell Mfg. Co., The, New Britain, Conn.
Exeter Brass Works, Exeter, N. H.
Fee & Mason Mfg. Co., New York, N. Y.
Powhatan Brass & Iron Works, Ranson, W. Va.
Robinson Mfg. Co., Cleveland, O.
Walworth Company, Boston, Mass.
Webb, F. W., Mfg. Co., Boston, Mass. "Crawford." "Webco."
Zurn, J. A., Mfg. Co., Erie, Pa.

HANGERS, PIPE, CHAIN.

(See "Chain, for Pipe Hanging.")

HANGERS, PIPE, PERFORATED STRAP.

Acme Pipe Strap Co., Detroit, Mich. "Acme."
Beaton & Cadwell Mfg. Co., New Britain, Conn.
Bettcher Stamping & Mfg. Co., The, Cleveland, O.
Blue Ribbon—Chicago Nipple Mfg. Co., Chicago, Ill.
Carpenter & Peterson, Boston, Mass.
Fitall—Consolidated Steel Strapping Co., Chicago, Ill.
Isert, John H., Co., Inc., Louisville, Ky.
Jumbo Heater & Mfg. Co., The, Cleveland, O.
Modern Mfg. Co., The, Cleveland, O.
Nortmann-Duffke Co., Milwaukee, Wis.
Robinson Mfg. Co., The, Cleveland, O.
Schild Specialty Co., Cleveland, Ohio.

HANGERS AND PLATES, PIPE, HOOK AND EXPANSION.

Beaton & Cadwell Mfg. Co., New Britain, Conn.
C.—Crane Co., Chicago, Ill.
Carpenter & Peterson, Boston, Mass.
Columbiana Boiler Co., Columbiana, O.
Essex Foundry, Newark, N. J.
Fee & Mason Mfg. Co., New York, N. Y.
Galva—Galva Heater Co., Galva, Ill.
Glenn Mfg. Co., St. Charles, Ill.
Hershey Machine & Foundry Co., Manheim, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
M. I. W.—Modern Iron Works, Quincy, Ill.
Modern Mfg. Co., The, Cleveland, O.
Morris Adjustable—T. J. Morris, Springfield, Mass.
Newbury, Jay H., & Son, Goshen, N. Y.
Newbury Mfg. Co., Monroe, N. Y.
Peco—Pittsburgh Engineering Co., Jeannette, Pa.
Pittsburg Valve & Fittings Co., Barberton, O.
Ravena Iron Co., Ravena, N. Y.
Robinson Mfg. Co., The, Cleveland, O.
Simmons, John, Co., New York, N. Y.
Walworth Company, Boston, Mass.

HANGERS, RADIATOR.

Carty & Moore Engineering Co., Inc., Detroit, Mich. "Moore."
E-Z—Healy-Ruff Co., Saint Paul, Minn.
Fowler & Wolfe Mfg. Co., Philadelphia, Pa.
Hoopes & Townsend Co., Philadelphia, Pa.
Little Giant Mfg. Co., Minneapolis, Minn. "Little Giant."
Rex—Percy N. Kenway, Boston, Mass.
Robinson Mfg. Co., Cleveland, O.

HANGERS, RANGE BOILER.

American Foundry & Mfg. Co., St. Louis, Mo.
American Saw & Tool Works, Chicago, Ill.
Carpenter & Paterson, Boston, Mass.
Fee & Mason Mfg. Co., New York.

HANGERS, SHAFT, ALUMINUM.

Goodell-Pratt Co., Greenfield, Mass.

HANGERS, SHAFT, BALL BEARING.

S K F Industries, Inc., New York, N. Y.
Skayef Ball Bearing Co., The, New York, N. Y.
Sprout, Waldron & Co., Muncy, Pa.
Transmission Ball Bearing Co., Buffalo, N. Y.
Wolf Co., The, Chambersburg, Pa.
Wood, T. B., Sons Co., Chambersburg, Pa. (ball-bearing). "Wood-Fafnir."

HANGERS, SHAFT, BRACKET.

Brown, A. & F., Co., The, Elizabethport, N. J.
Hill Clutch Machine & Foundry Co., The, Cleveland,
Link-Belt Company, Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
Pioneer—Standard Pressed Steel Co., Jenkintown, Pa.
Royersford Foundry & Machine Co., Royersford, Pa.
Wood-Fafnir—T. B. Wood Sons Company, Chambersburg, Pa.

HANGERS, SHAFT, DROP AND POST, CAST IRON.

American Tool & Machine Co., Boston, Mass. "American," "Boston Giant."
Badger—Badger Gas & Gasoline Engine Co., Kansas City, Kan.

Barnard & Leas Mfg. Co., Moline, Ill.
Barnard Mfg. Co., Spokane, Wash.
Barry—R. & J. Dick Co., Inc., Passaic, N. J. (steel.)
Barry—Barry Co., Muscatine, Ia.
Bond, B D-S—Bond Foundry & Machine Co., Manheim, Pa.
Brightman Machine Co., The, Cleveland, O.
Brown, A. & F., Co., The, Elizabethport, N. J.
Brown & Sharpe Mfg. Co., Providence, R. I.
Caldwell, H. W., & Son Co., Chicago, Ill.
Canton Foundry & Machine Co., The, Canton, O
Chicago Pulley & Shafting Co., Chicago, Ill.
C. M. C.—Christiana Machine Co., Christiana, Pa.
Dodge Mfg. Corp., Mishawaka, Ind.
Dow, L. B., Inc., Keene, N. H.
Eastwood, Benjamin, Co., Paterson, N. J.
Fairbanks-Morse—Fairbanks, Morse & Co., Chicago
Fair Haven Foundry & Machine Co., Fair Haven, Vt.
Fairmount Foundry & Engineering Works, Woonsocket, R. I.
Falls—Falls Clutch & Machinery Co., Kent, O.
Franklin Machine Co., Providence, R. I.
Fritz, Geo. J., Foundry & Machine Co., St. Louis, Mo.
Golden's Foundry & Machine Co., Columbus, Ga.
Gund Mfg. Co., La Crosse, Wis.
Hanson Clutch & Machinery Co., Tiffin, O.
Hill Collar Oiling — The Hill Clutch Machine & Foundry Co., The, Cleveland, O.
J. E. Hoppen & Sons, Belleville, N. J. "Hoppen."
Howard Iron Works, Buffalo, N. Y
James Hunter Machine Co., North Adams, Mass. "Hunter."
Huntsville Foundry & Machine Co., Huntsville, Ala.
Hyatt Roller Bearing Co., Newark, N. J.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Jones—W. A. Jones Foundry & Machine Co., Chicago, Ill.
Levalley—Chain Belt Co., Milwaukee, Wis.
Link-Belt Company, Cnicago and Philadelphia.
Lombard Iron Works & Supply Co., Augusta, Ga.
Medart Company, The, St. Louis, Mo.
National—National Foundry & Mfg. Co., Williamsport, Pa.
Naylor Bros., Peekskill, N. Y.
Nordyke & Marmon, Inc., Indianapolis, Ind.
Poole Engineering & Machine Co., Baltimore, Md
Prescott Geo. W. Co.,The, Menominee, Mich.
Pyott Foundry Co., Chicago, Ill.
Reed—Harris & Reed Mfg. Co., Chicago, Ill.
Roller Bearing—Valley Iron Wks., Williamsport, Pa
Royersford Foundry & Machine Co., Royersford, Pa.
S. K. F.—S. K. F. Industries, Inc., New York, N. Y.
Schultz, A. L., & Son, Chicago, Ill.
Sellers, Wm., & Co., Inc., Philadelphia, Pa.
Smith, Winfield H., Springville, Erie Co., N. Y. (small.)
Sprout, Waldron & Co., Muncy, Pa. "Hercules."
Standard Pressed Steel Co., Jenkintown, Pa. (Trade names—Bantam, Pioneer.)
Stephens-Adamson Mfg. Co., Aurora, Ill.
Transmission Ball Bearing Co., Buffalo, N. Y.
Upton & Gilman Machine Co., Lowell, Mass.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wheland, The, Co., Chattanooga, Tenn.
Wolf Co., The, Chambersburg, Pa.
Wood-Fafnir—T. B. Wood Sons Company, Chambersburg, Pa. (ball-bearing).
Wood, T. B., Sons Company, Chambersburg, Pa. (Trade names—Wood's Ball & Socket, Peerless, Universal Giant.)

HANGERS, SHAFT, RING OILING.

American Tool & Machine Co., Boston, Mass.
Barnard & Leas Mfg. Co., Moline, Ill.
Bond Foundry & Machine Co., Manheim, Pa.
Brown, A. & F., Co., The, Elizabethport, N. J.
Caldwell, H. W., & Son Co., Chicago, Ill.
Cresson-Morris Co., Philadelphia, Pa.
Dodge Mfg. Corp., Mishawaka, Ind.
Hanson Clutch & Machinery Co., Tiffin, O.
Hercules—Valley Iron Works, Williamsport, Pa.
High Collar Oiling—The Hill Clutch Machine & Foundry Co., Cleveland, O.
Hunt—Rodney Hunt Machine Co., Orange, Mass
Link-Belt Company, Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
National—National Foundry & Mfg. Co., Williamsport, Pa.
Royersford Foundry & Machine Co., Royersford, Pa.
Weller Mfg. Co., Chicago, Ill.
Wood, T. B., Sons Co., Chambersburg, Pa. Trade names—Wood's Ball & Socket, Peerless.

HANGERS, SHAFT, SELF OILING.

American, Boston, Giant—American Tool & Machine Co., Boston, Mass.
Barnard & Leas Mfg. Co., Moline, Ill.
Brown, A. & F., Co., The, Elizabethport, N. J.
Brown & Sharpe Mfg. Co., Providence, R. I.
Caldwell, H. W., & Son Co., Chicago, Ill.
Dodge Mfg. Corp., Mishawaka, Ind.
Hanson Clutch & Machinery Co., Tiffin, O.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Rodney Hunt Machine Co., Orange, Mass. "Hunt."
Jones—W. A. Jones Foundry & Machine Co., Chicago, Ill.
Link-Belt Company, Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
Royersford Foundry & Machine Co., Royersford, Pa.
Skayef—S. K. F. Industries, Inc., New York, N. Y.
Transmission Ball Bearing Co., Buffalo, N. Y.
Weller Mfg. Co., Chicago, Ill.
Wood, T. B., Sons, Company, Chambersburg, Pa. (Trade names—Wood's Ball & Socket, Peerless.)

HANGERS, SHAFT SLING.

Dodge Mfg. Corp., Mishawaka, Ind.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Falls—Falls Clutch & Machinery Co., Kent, O.
Medart Company, The, St. Louis, Mo.
Wood, T. B., Sons, Company, Chambersburg, Pa.

HANGERS, SHAFT, STEEL.

American Pulley Co., Philadelphia, Pa.
Barry—Barry Co., Muscatine, Iowa.
Dodge—Dodge Mfg. Corp., Mishawaka, Ind.
Lytestrong—Bond Foundry & Machine Co., Manheim Pa.
Marvel—Chicago Pulley & Shafting Co., Chicago, Ill.
Standard Pressed Steel Co., Jenkintown, Pa. (Trade names—Bantam, Hallowell, Pioneer.)

HANGERS, SPRINKLER.

Carpenter & Peterson, Boston, Mass.
Modern Iron Works, Quincy, Ill.
Newbury Mfg. Co., The, Monroe, N. Y.
Paine—The Paine Co., Chicago, Ill.

HANGERS, FOR TOWEL AND GRIP BARS.

Russell, John M. Mfg. Co., The, Naugatuck, Conn.

HANGERS, TROLLEY.

Richards-Wilcox Mfg. Co., Aurora, Ill.

HARDENERS, CEMENT.

General Fireproofing Co., The, Youngstown, O.

HARDWARE, CASEMENT.

Air-Way—Richards-Wilcox Mfg. Co., Aurora, Ill.
Sargent—Sargent & Co., New Haven, Conn.

HARDWARE, FIRE DOOR.

Bolles, Wm. B., Milwaukee, Wis. (Trade names—Bolles, Milwaukee.)
R-W—Richards-Wilcox Mfg. Co., Aurora, Ill.

HARDWARE, GARAGE DOOR.

Richards-Wilcox Mfg. Co., Aurora, Ill. Trade names—Slidetite, SlydaSyde, CornR-Wise, R-W Parallel, Round-Runner, R-W Flush and Parallel-Ideal.
Phenix Mfg. Co., Milwaukee, Wis.

HARDWARE, MARINE.

American Wire & Cable Co., Inc., The, New York, N. Y.
Laughlin, Thos., Co., The, Portland, Me.
Malleable Iron Fittings Co., Branford, Conn.
Marine Hardware Equipment Co., South Portland, Me.
Marine Mfg. & Supply Co., New York, N. Y.
Perko—Perkins Marine Lamp Co., Brooklyn, N. Y
Wilcox, Crittenden & Co., Inc., Middletown, Conn.

HARDWARE, POLE AND LINE, GALVANIZED.

Bethlehem Steel Co., Bethlehem, Pa.
Galvanized Products Co., Phillipsburg, N. J.
Kansas City Bolt & Nut Co., Kansas City, Mo.
Lanz, M., Bolt Co., Pittsburgh, Pa.
Moran Bolt & Nut Mfg. Co., St. Louis, Mo.
Oliver Iron & Steel Corp., Pittsburgh, Pa.
St. Louis Malleable Casting Co., St. Louis, Mo.
St. Louis Screw Co., St. Louis, Mo.
Western Electric Co., Inc., Chicago, Ill.

HAULERS, LOG, STEAM.

Phoenix—Phoenix Mfg. Co., Eau Claire, Wis.

HAULS, CAR.

Link-Belt Co., Chicago and Philadelphia, Pa.
Superior Iron Works, Superior, Wis.
Webster Mfg. Co., The, Chicago, Ill.

HATCHETS, LATHING.

(See "Axes and Hatchets.")

THE MEDART COMPANY

Formerly Medart Patent Pulley Co.

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Engineering Sales Offices
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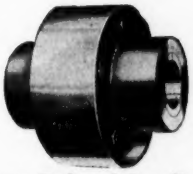

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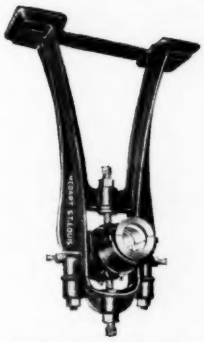

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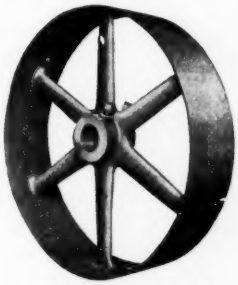

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HEADERS, BOILER.

Cornell & Underhill, New York, N. Y.
National Valve & Mfg. Co., Pittsburgh, Pa.
Shaw Kendall Engineering Co., Toledo, Ohio.

HEADERS AND REHEADERS, BOLT.

Acme Machinery Co., Cleveland, O.
Ajax Mfg. Co., The, Cleveland, Ohio.
Baird Machine Co., Bridgeport, Conn.
Blake & Johnson Co., Waterbury, Conn.
Boynton & Plummer, Inc., Chester Depot, Vt.
Green River—Greenfield Tap & Die Corp., Greenfield, Mass.
Little Giant—Greenfield Tap & Die Corp., Greenfield, Mass.
Manning, Maxwell & Moore, Inc., New York.
Manville Machine Co., E. J., Waterbury, Conn.

HEADERS AND MANIFOLDS, PIPE, WROUGHT.

Cesuco—Central Supply Co., Minneapolis, Minn.
Chicago Nipple Mfg. Co., Chicago, Ill.
Cornell & Underhill, New York, N. Y.
Crane—Crane Co., Chicago, Ill.
Ford & Kendig Co., Philadelphia, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Kellogg—M. W. Kellogg Co., New York.
Mitchell & Co., Inc., W. K., Philadelphia, Pa.
Simmons, John, Co., New York, N. Y.
Simmons Pipe Bending Works, Newark, N. J.
Walworth Company, Boston, Mass.
Whitlock Coil Pipe Co., Hartford, Conn.

HEADS, BEAM.

American Pulley Co., Philadelphia, Pa.

HEADS, BOILER, FLANGED AND DISHED.

Glasgow Iron Co., Pottstown, Pa.
Lukens Steel Co., Coatesville, Pa.
Munroe, R., & Sons Mfg. Corp., Pittsburg, Pa.

HEADS, BOLT, BRASS.

Columbus Brass Co., Columbus, O.

HEADS, BORING.

Acme—The Schellenbach-Hunt Tool Co., Cincinnati, O.
Casler, Herman, Canastota, N. Y. "Casler Offset."
Madison Adjustable—Madison Mfg. Co., Muskegon, Mich.
Porter Cable Machine Co., Syracuse, N. Y.
Universal Boring Machine Co., Hudson, Mass.

HEADS, CLOSET BOWL AND SCREW.

American Pin Co., Waterbury, Conn.
Ansonia Mfg. Co., Ansonia, Conn.
Hutter, Karl, Inc., New York, N. Y.
Maddock's, Thos. & Sons, Co., Trenton, N. J.

HEADS, CUTTER, WOODWORKING.

American Woodworking Machinery Co., Rochester, N. Y.
Atkins, E. C., & Co., Indianapolis, Ind.
Burrill, J. D., & Son, Ilion, N. Y.
Concave—Morris L. Orum, Philadelphia, Pa.
Fay, J. A. & Egan Co., Cincinnati, O.
Fox Machine Co., Jackson, Mich.
Gage, E. E., Mfg. Co., Gardner, Mass.
Holcomb, A. L., Co., Grand Rapids, Mich.
Huther Bros. Saw Mfg. Co., Inc., Rochester, N. Y.
Lamson Cutter Head Co., Chicago, Ill.
Mattison Machine Works, Rockford, Ill.
Philbrick Cutter Head Co., Seattle, Wash.
Schellenbach-Hunt Tool Co., Cincinnati, O.
Shimer, Samuel J. & Sons, Milton, Pa.
Smith, H. B., Machine Co., Smithville, N. J.
Woods, S. A., Machine Co., Boston, Mass.

HEADS, DIE.

Apex Machine Co., The, Dayton, O.
Elliott Co., Jeannette, Pa. "Elliott."
Everlast—Franklin Williams, Inc., Newark, N. J.
Exeter Machine Works, Exeter, N. H.
Geometric—The Geometric Tool Co., New Haven, Conn.
Ideal—Ideal Foundry & Machinery Co., Beaver Falls, Pa.
Landis Machine Co., Waynesboro, Pa.
Greenfield Tap & Die Corp., Greenfield, Mass. (Trade names—G. T. D., Little Giant.)
Modern (Wallace Patent)—Consolidated Machine Tool Corp. of America, New York, N. Y.
Namco—The National Acme Co., Cleveland, O.
Victor—Landis Machine Co., Victor plant, Waynesboro, Pa.

HEADS, DIE, THREADING.

Landis Machine Co., Waynesboro, Pa. (Bolt and pipe.)

HEADS, DIVIDING (FOR TOOL ROOMS).

Sundstrand Machine Tool Co., Rockford, Ill. "Rockford."
Whiting & Comstock, Hartford, Conn.

HEADS, DOWN SPOUT, CAST IRON.

Wade Iron Sanitary Mfg. Co., Chicago, Ill.

HEADS, DRILL, ADJUSTABLE AND FIXED CENTER.

Barnes Drill Co., Rockford, Ill.
Sellew Machine Tool Co., Pawtucket, R. I.
United States Drill Head Co., The, Cincinnati, O.

HEADS, DRILL, MULTIPLE SPINDLE.

United States Drill Head Co., Cincinnati, O.

HEADS, DRILLING, AUXILIARY.

Barnes Drill Co., Rockford, Ill.
Hoefer Mfg. Co., Freeport, Ill.
Sellew—Sellew Machine Tool Co., Pawtucket, R. I.
Superior—Superior Machine & Engineering Co., Detroit, Mich.

HEADS, DRINKING FOUNTAIN.

Century Brass Works, Inc., Belleville, Ill.
Hajoca Corporation, Philadelphia, Pa.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.

HEADS, EXHAUST PIPE—CAST IRON AND GALVANIZED.

Abendroth & Root Mfg. Co., Newburgh, N. Y. "Root."
American—Whitlock Coil Pipe Co., Hartford, Conn.
American Spiral Pipe Works, Chicago, Ill.
Bonar—James Bonar & Co., Pittsburg, Pa.
Burt—Burt Mfg. Co., Akron, O.
Champion—Chicago Engineer Supply Co., Chicago.
Common Sense—Strandwitz & Scott, Camden, N. J
Connecticut Blower Corp., Hartford, Conn.
Cornell & Underhill, New York.
Cyclone—Wright-Austin Co., Detroit, Mich.
Direct Separator Co., The, Syracuse, N. Y.
Fulton Foundry & Machine Co., Cleveland, O.
Hald Blow Pipe Works, Brooklyn, N. Y.
Hoppes Mfg. Co., The, Springfield, O.
Hudson—Abendroth & Root Mfg. Co., Newburgh, N. Y
Hussey, McCann & Co., New York, N. Y.
Illinois Malleable Iron Co., Chicago, Ill.
Kirk & Blum Mfg. Co., Cincinnati, O.
Koven, L. O., & Bro., Jersey City, N. J.
Lyman—Benj. K. Lyman & Co., Chicago, Ill.
McAlear Mfg. Co., The, Chicago, Ill.
Milwaukee Steam Appliance Co., West Allis, Wis. "Triumph."
Philadelphia Pipe Bending Co., The, Philadelphia, Pa
Ringen—Sodemann Heat & Power Co., St. Louis, Mo.
Ruggles-Klingemann Mfg. Co., Salem, Mass.
Rutzler—E. Rutzler Co., New York, N. Y.
Simmons Pipe Bending Works, Newark, N. J.
Simplex—Virginia Blower & Heater Co., Inc., Richmond, Va.
Skinner Bros. Mfg. Co., St. Louis, Mo.
Standard—Burt Mfg. Co., Akron, O.
Stein's—John J. Stein & Son, Brooklyn, N. Y.
Sterling—The Sterling Blower Co., Hartford, Conn.
Sturtevant—B. F. Sturtevant Co., Hyde Park, Mass.
Swartwout—The Swartwout Co., Cleveland, O.
Thermo—Illinois Engineering Co., Chicago, Ill.
Tip-top—Boylston Steam Specialty Co., Chicago, Ill.
Utility—Standard Steam Specialty Co., New York, N. Y.
Walworth Company, Boston, Mass.
Williams, Franklin, Inc., Newark, N. J. (Trade names "Everlast," "Neverust.")
Wright-Austin—Wright-Austin Co., Detroit, Mich.

HEADS, FACING.

Mummert-Dixon Co., Hanover, Pa.

HEADS, GRINDING AND POLISHING.

Blackhawk Mfg. Co., Milwaukee, Wis.
Builders Iron Foundry Co., Providence, R. I.
Champion Blower & Forge Co., The, Lancaster, Pa.
Clizbe Bros. Mfg. Co., Plymouth, Ind.
Coates—Coates Clipper Mfg. Co., Worcester, Mass.
Goodell-Pratt Co., Greenfield, Mass.
Forbes & Myers, Worcester, Mass.
Leiman Bros., New York, N. Y.
Millers Falls Co., Millers Falls, Mass.
Partridge, E. O., Chicago.
Wells—Greenfield Tap & Die Corp., Greenfield, Mass.

HEADS, INDEX, UNIVERSAL.

Simmons Machine Co., Inc., Albany, N. Y.

HEADS, SHOWER BATH.

Alliance Vitreous China Co., Alliance, O.
Ampinco—American Pin Co., Waterbury, Conn.
Boekel, Wm., & Co., Philadelphia, Pa.
Central Specialty Mfg. Co., Chicago, Ill.

Clean Sweep—Detroit Sanitary Supply Co., Detroit, Mich.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Douglas, John, Co., Cincinnati, O.
Elgin Brass Co., New York, N. Y.
Eustis, J. P., Mfg. Co., Boston, Mass.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Federal-Huber Co., Chicago, Ill.
Goetz Brass Co., Chicago, Ill.
Hajoca Corporation, Philadelphia, Pa.
Haydenville Co., Haydenville, Mass.
Hoelscher Bros., Chicago, Ill.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Imperial Brass Mfg. Co., Chicago, Ill.
Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Kenney-Cutting Products Corp., New York, N. Y.
Lehnert & Co., New York, N. Y.
Maddock's, Thos., Sons, Co., Trenton, N. J.
Meyer-Sniffen Co., The, New York, N. Y.
Milwaukee Flush Valve Co., Milwaukee, Wis.
Mott, J. L., Iron Works, Trenton, N. J.
M. V. B. Temporator—Morency-Van Buren Mfg. Co., Sturgis, Mich.
National—National Brass Works, Inc., Los Angeles, Cal.
Nelson, N. O., Mfg. Co., St. Louis, Mo.
Peck Bros. & Co., New Haven, Conn.
Powers Mfg. Co., Inc., J. P. Ossining, N. Y.
Powers Regulator Co., Chicago, Ill.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Royal Brass Mfg. Co., Cleveland, O.
Rundle-Spence Mfg. Co., Milwaukee, Wis.
Sanitas Mfg. Co., Boston, Mass.
Seattle Brass Co., Seattle, Wash.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Smith, E. C., Mfg. Co., Chicago, Ill.
Speakman Co., Wilmington, Del.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Waterbury Mfg. Co., Waterbury, Conn.
Wolff Mfg. Corp., Chicago, Ill.

HEADS, SPRAY.

Yarway—Yarnall-Waring Co., Philadelphia, Pa.

HEADS, SPRINKLER.

(See "Sprinklers, Automatic Fire.")

Myers, F. E., & Bro. Co., The, Ashland, O. (Trade names—Myers, Bulldozer, Defiance, Faultless, Hercules, Simplex, California.)

HEADS, STOPPER, LADLE.

R. B. Seidel, Inc., Philadelphia, Pa.

HEADS, TURRET, FOR LATHES.

(See also "Holders, Tool.")

Almond, T. R., Mfg. Co., Ashburnham, Mass.
Cincinnati Tool Co., Cincinnati, O.
Meisselbach-Catucci Mfg. Co., Newark, N. J.
Newman Mfg. Co., Cincinnati, O.
Scottools—Keystone Equipment Co., Philadelphia, Pa
Turner, Quint Turret—Turner Machine Co., Danbury, Conn.

HEADS, WELDING

Meco—Modern Engineering Co., St. Louis, Mo.

HEADS, WORKING.

(See "Pumps, Artesian or Deep Well.")

HEATERS, AIR.

(See also, "Preheaters, Air.")

American Blower Co., Detroit, Mich. "A. B. C."
American Airdry Corp., Chicago, Ill. "Airdry."
Badenhausen Corp., Cornwells Heights, Pa.
Clarage Fan Co., Kalamazoo, Mich.
General Electric Co., Schenectady, N. Y.
Hg Electric Ventilating Co., Chicago, Ill.
Prat-Daniel Corp'n, New York, N. Y.
Skinner Bros. Mfg. Co., Inc., St. Louis, Mo.
Sturtevant, B. F., Co., Boston, Mass.

HEATERS, ASPHALT, PATCHING.

Aeroil—Aeroil Burner Co., Inc., Union Hill, N. J.

HEATERS, ASPHALT AND TAR.

Aeroil—Aeroil Burner Co., Inc., Union Hill, N. J.
Anthony Co., The, Long Island City, N. Y.
Barber Asphalt Co., The, Philadelphia, Pa.
Biehl Iron Works, Inc., The, Reading, Pa.
Biggs Boiler Works Co., The, East Akron, O.
Billow—National Supply Co., Chicago, Ill.
Buckeye—The Macleod Co., Cincinnati, O.
Canton Boiler & Engineering Co., Canton, O.
Columbiana Boiler Co., Columbiana, Ohio.
Evans, F. H., Brooklyn, N. Y.
Hauck—Hauck Mfg. Co., Brooklyn, N. Y.
Improved Appliance Co., Brooklyn, N. Y.
Kinney—Kinney Mfg. Co., Boston, Mass.
Koven & Bro., L. O., New York, N. Y.
Littleford Bros., Cincinnati, O.
Lyman—Benj. K. Lyman & Co., Chicago, Ill.
National—Phillips, Doup and Co., Inc., Brooklyn, N. Y.
Petroleum Iron Works Co., Sharon, Pa.
Pluto—Chausse Mfg. Co., Detroit, Mich.
Reliance—Universal Road Machinery Co., Kingston, N. Y.

HEATERS, BATHROOM, WALL.

Rayflecta—The Trolley Supply Co., Gas Appliance Dept., Massillon, O.
Electric Heating & Mfg. Co., Seattle, Wash. "Heet Feet Electric Register."

HEATERS, CLOSET VENT STACK.

American Warming & Ventilating Co., Elmira, N. Y.
Ebco—The D. A. Ebinger Sanitary Mfg. Co., Columbus, O.

HEATERS, CONCRETE.

Aeroil—Aeroil Burner Co., Inc., Union Hill, N. J.
Littleford Bros., Cincinnati, Ohio.

HEATERS AND RADIATORS, ELECTRIC.

Hynes & Cox Electric Corp., Albany, N. Y.
Bay Ridge Specialty Co., Trenton, N. J.

HEATERS, ELECTRIC, INDUSTRIAL.

General Electric Co., Schenectady, N. Y. (immersion).
Gold—Gold Car Heating & Lighting Co., Brooklyn, N. Y.
Hold-Heat—Russell Electric Co., Chicago, Ill.
Hynes & Cox Electric Corp., Albany, N. Y.
Space Heater—Cutler-Hammer Mfg. Co., Milwaukee, Wis.
Steinmetz Heating Co., Inc., New York, N. Y. "Globar."

HEATERS, FEED WATER.

Alberger Heater Co., Buffalo, N. Y.
Alberger Pump & Condenser Co., New York.
American Berryman and American Standard—Whitlock Coil Pipe Co., Hartford, Conn.
Bass Foundry & Machine Co., Fort Wayne, Ind.
Biggs Boiler Works Co., The, East Akron, O.
Blackburn—James Beggs & Co., New York.
Bros—Wm. Bros Boiler & Mfg. Co., Minneapolis, Minn.
Brownell Co., The, Dayton, O.
Burrows, F. A., Mfg. Co., York, Pa.
Casey-Hedges Co., The, Chattanooga, Tenn.
Columbiana Boiler Co., Columbiana, Ohio.
Elliott—Elliott Co., Jeannette, Pa.
Erie City Iron Works, Erie, Pa.
Freeman Mfg. Co., Racine, Wis.
Frost Mfg. Co., Galesburg, Ill.
Fulton Foundry & Machine Co., Cleveland, O.
Gleener—Reading Heater & Supply Co., Reading, Pa.
Griscom-Russell Co., The, New York, N. Y. (Trade names—G. R. Instantaneous, Goubert Multipass, Massillon, Reilly Multicoil.)
Graver Corporation, East Chicago, Ind.
Harris—Arthur Harris & Co., Chicago, Ill.
Harrisburg—Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.
Hussey, McCann & Co., New York, N. Y.
Keeler Co., E., Williamsport, Pa.
Kieley & Muller, New York, N. Y. "Kilemul."
King-Bate Co., The, Conshohocken, Pa.
Koven, L. O., & Bro., Jersey City, N. J.
Linton—Ernst & Co., Newark, N. J.
Moffat—The Dayton Steam Boiler Wks., Dayton, O.
Murray Iron Works Co., Burlington, Iowa.
National—The National Pipe Bending Co., New Haven, Conn.
Open Coil Heater & Purifier Co., Indianapolis, Ind.
Park Mfg. Co., The, Charlotte, N. C.
Paracoil—Davis Engineering Corp., New York,, N. Y.
Power Plant Specialty Co., Chicago, Ill.
Reliance—Milwaukee Reliance Boiler Works, Milwaukee, Wis.
Riblet—Erie Mfg. & Supply Co., Erie, Pa.
Ross—Ross Heater & Mfg., Buffalo, N. Y.
Ross—Ross Mfg. Co., The, Northville, Mich.
Sims—The Sims Co., Erie, Pa.
S. & K.—Schutte & Koerting Co., Philadelphia, Pa.
Stack—Stack Heater Co., Boston, Mass.
Standard Multicoil—Standard Water System Co. of New Jersey, Hampton, N. J.
Superheater Co., The, New York, N. Y.
Swartwout—The Swartwout Co., Cleveland, Ohio.
Torrid—Alonzo Hoover & Son, Hackettstown, N. J.
Tripure—Standard Water System Co. of N. J., Hampton, N. J.
Tudor Boiler Mfg. Co., The, Cincinnati.
Utility—Standard Steam Specialty Co., New York.
Vater—Power Plant Specialty Co., Chicago, Ill.
Wainwright—Alberger Pump & Condenser Co., New York, N. Y.

Walsh & Weidner Boiler Co., The, Chattanooga, Tenn.
Webster—Warren Webster & Co., Camden, N. J.
C. H. Wheeler—C. H. Wheeler Mfg. Co., Philadelphia.
Wickes Boiler Co., The, Saginaw, Mich.
Worthington Pump & Machinery Corp., New York, N. Y.

HEATERS AND PURIFIERS, FEED WATER

Alberger Heater Co., Buffalo, N. Y.
Bayer Steam Soot Blower Co., St. Louis, Mo.
Berry—The Berry Engineering Co., Chester, Pa.
Berryman—Ernst & Co., Newark, N. J.
Bonar—James Bonar & Co., Pittsburg, Pa.
Bros Wm., Boiler & Mfg. Co., Minneapolis, Minn.
Cochrane Corp., Philadelphia, Pa.
Electric Water Sterilizer & Ozone Co., Scottdale, Pa.
Eureka—Dodge Mfg. Corp., Mishawaka, Ind.
Frost Mfg. Co., Galesburg, Ill.
Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.
Kieley—Kieley & Muller, New York.
Linton—The Linton Machine Co., New York, N. Y.
Mertes—The Milwaukee Boiler Co., Milwaukee, Wis
Milwaukee Boiler Mfg. Co., The, Milwaukee, Wis.
Moffat—Moffat Feed Water Heater & Purifier Co., Dayton, O.
Munroe, R., & Sons Mfg. Corp., Pittsburg, Pa.
Open Coil Heater & Purifier Co., Indianapolis, Ind.
Otis—Stewart Heater Co., Buffalo, N. Y.
Pittsburg—James Bonar & Co., Pittsburg, Pa.
Reilly Multiscreen—The Griscom-Russell Co., New York, N. Y.
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Sims—The Sims Co., Erie, Pa.
Webster—Warren Webster & Co., Camden, N. J.
Wheeler—The Wheeler Condenser & Engineering Co., New York, N. Y.
Worthington Pump and Machinery Corp., New York

HEATERS, FEED WATER, OPEN.

Colles Heater Co., Chicago, Ill.
National—The National Pipe Bending Co., New Haven, Conn.
Massillon—Griscom-Russell Co., New York.
Sickle—Open Coil Heater & Purifier Co., Indianapolis, Ind.
Sims—The Sims Co., Erie, Pa.
Stickle—John Simmons Co., New York, N. Y.
Whitlock Open Exhaust—Whitlock Coil Pipe Co., Hartford, Conn.

HEATERS, FUEL OIL.

Anthony Co., The, Long Island City, N. Y.
Automatic Electric Heater Co., Philadelphia, Pa. "Sepco."
Deckert—V. F. Deckert Mfg. Co., Minneapolis, Minn.
Foster—Power Specialty Co., New York, N. Y.
Hynes & Cox Electric Corp., Albany, N. Y.
Lalor Fuel Oil System Co., Baltimore, Md.
Mahrvel—Mahr Mfg. Co., Minneapolis, Minn.
National—National Pipe Bending Co., New Haven, Conn.
Paracoil—Davis Engineering Corp., New York,, N. Y.
Reilly—The Griscom-Russell Co., New York, N. Y.
Ross—Ross Heater & Mfg. Co., Buffalo, N. Y.
Tread-Kill—M. H. Treadwell Company, New York, N. Y.
Schutte & Koerting Co., Philadelphia, Pa.
Standard Multicoil—Standard Water System Co. of New Jersey, Hampton, N. J.
Tate-Jones & Co., Inc., Leetsdale, Pa.
White—White Fuel Oil Engineering Corp., New York.

HEATERS, GARAGE.

Age Gar—The John E. Mannen Co., Cleveland, O. (gas).
Canton Clothes Dryer Co., The, Canton, O.
Franklin—The Trolley Supply Co. (Gas Appliance Dept.), Massillon, O.
High Efficiency—Gas Appliance Co., Cleveland, O. (Gas.)
Jumbo—Jumbo Heater & Mfg. Co., The, Cleveland, Ohio.
Klinert—Hugo Mfg. Co., Duluth, Minn.
Lattner—P. M. Lattner Mfg. Co., Cedar Rapids, Ia.
Neverout Patent—Rose Mfg. Co., Philadelphia, Pa.
Rex—The Cleveland Heater Co., Cleveland, O.
Superior—Superior Mfg. Co., N. S. Pittsburg, Pa.
Syracuse Radiator Co., Inc., Syracuse, N. Y. "Syraco."
Thatcher Furnace Co., New York, N. Y.
Wise Furnace Co., Akron, O.

HEATERS AND POTS, GLUE.

All Rite Company, The, Rushville, Ind. "All Rite."
American Electrical Heater Co., Detroit, Mich
Automatic Electric Heater Co., Philadelphia, Pa. "Sepco."
Bass Bros., Inc., New York, N. Y.
Dart, E. M., Mfg. Co., Providence, R. I.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Francis, Chas. E., Co., Rushville, Ind. (electric). "Millionaire."
General Electric Co., Schenectady, N. Y.
Grammes, L. F., & Sons, Allentown, Pa.
Hold-Heet—Russell Electric Co., Chicago, Ill.
International Electric Co., Indianapolis, Ind.
Koven, L. O., & Bro., Jersey City, N. J.
Nason Mfg. Co., New York, N. Y. (gas and steam).
New Advance Machinery Co., Van Wert, O. (steam, gas or electric). "Advance-Wetmore."
New Toledo—Toledo Glue Appliance Div. of The Amer. Swiss Magneto Co., Toledo, O. (electric.)
Obermayer, S. Co., The, Cincinnati, Ohio.
Red Crown—Hynes & Cox Electric Corp., Albany, N. Y. (electric).
Simplex Electric Heating Co., The, Cambridge, Mass
Sta-Warm Electric Heater Corp., Ravenna, O. "Sta-Warm."
Stuart & Peterson Co., The, Burlington, N. J.
Towsley, John T., Mfg. Co., Cincinnati, O.
Van Dorn Electric Tool Co., The, Cleveland, O.
Wallace—J. D. Wallace & Co., Chicago, Ill. (electric).
Westinghouse Electric & Mfg. Co., Philadelphia, Pa.
Wet-Heat—Emmert Mfg. Co., Waynesboro, Pa. (electric).
Zimmerman—Instantaneous Glue Converter Co., Cincinnati, O (steam).

HEATERS, LADLE.

Buzzer—Charles A. Hones, Inc., Baldwin, Long Island, N. Y.
Hauck—Hauck Mfg. Co., Brooklyn, N. Y.
Monarch Engineering & Mfg. Co., The, Baltimore, Md.
U. S.—United States Smelting Furnace Co., Belleville, Ill.

HEATERS, LAUNDRY.

(See "Stoves, Laundry.")

HEATERS, LIQUID, AUTOMATIC, ELECTRIC.

Sta-Warm Electric Heater Corp., Ravenna, Ohio.

HEATERS, MELTING POT, ELECTRIC.

C-H—Cutler-Hammer Mfg. Co., Milwaukee, Wis.
General Electric Co., Schenectady, N. Y.
Hold-Heat—Russell Electric Co., Chicago, Ill.

HEATERS, PIPE, ELECTRIC.

Hynes & Cox Electric Corp., Albany, N. Y.

HEATERS, RADIATORS, ELECTRIC.

Steinmetz Heating Co., Inc., New York, N. Y. "Globar."

HEATERS, RANGE BOILER AND TANK.

(See "Heaters, Water, Gas, Range Boiler.")

HEATERS, RIVET AND METAL, ELECTRIC.

Berwick—American Car & Foundry Co., New York, N. Y.

HEATERS, STEAM, WITH BLOWER.

American Blower Co., Detroit, Mich. (hot air).
Baetz—Skinner Bros. Mfg. Co., St. Louis, Mo.

HEATERS, SURFACE.

Macleod Co., The, Cincinnati, O.

HEATERS, TANK, STEAM JET.

Adsco—American District Steam Co., North Tonawanda, N. Y.
American Injector Co., Detroit, Mich.
Berryman—Ernst & Co., Newark, N. J.
Central Automatic Sprinkler Co., Philadelphia, Pa.
Crescent—W. H. Pearce & Co., Chicago, Ill.
Economy Faucet Co., Providence, R. I.
Hancock—Hancock Inspirator Co., The, New York N. Y.
Hennebohle Co., Chicago, Ill.
Koerting—Schutte-Koerting Co., Philadelphia, Pa
Lee—United Brass & Aluminum Mfg. Co., Port Huron, Mich.
Madison—Wisconsin Foundry & Machine Co., Madison, Wis.
Moffatt Feed Water Heater & Purifier Co., Dayton Ohio.
Penberthy—Penberthy Injector Co., Detroit, Mich.
Sanos—Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Sims—The Sims Co., Erie, Pa.
Starwell—Warlic Heater Mfg. Co., St. Louis, Mo
Syracuse Steam Generator, Inc., Syracuse, N. Y.
Watson & McDaniel Co., Philadelphia, Pa.

HEATERS, TAR.

(See "Heaters, Asphalt and Tar")

HEATERS, TOOL.

Aeroil Burner Co., Inc., West New York, N. J.
Hauck Mfg. Co., Brooklyn, N. Y.
Phisto—Chausse Mfg. Co.,, Detroit, Mich.

HEATERS, "U" BEND.

National Pipe Bending Co., New Haven, Conn.

HEATERS, UNIT.

Featherweight—L. J. Wing Mfg. Co., New York. N. Y.
Haines Co., The, Chicago, Ill.
Ilgair—Ilg Electric & Ventilating Co., Chicago, Ill.
Johnson Fan & Blower Co., Chicago, Ill.
Venturafin—American Blower Co., Detroit, Mich.

HEATERS, UNIT DIRECTIONAL.

Modine Mfg. Co., Racine, Wis.
Nelson, The Herman, Corp., Moline, Ill.
Thermidaire Corp., Kansas City, Mo.

HEATERS, WAGON TIRE.

Improved Appliance Co., Brooklyn, N. Y.
Rochester—West Tire Setter Co., The, Rochester, N Y.

HEATERS, WARM AIR.

Ideal Vecto—American Radiator Co., New York, N. Y.

HEATERS, WATER, AUXILIARY, FOR FURNACES AND BOILERS.

Andrews Heating Co., Minneapolis, Minn.
American Radiator Co., New York, N. Y.
Bachmann Bros., LaPorte, Ind.
Blake Specialty Co., Rock Island, Ill.
Boynton Furnace Co., The, New York, N. Y.
Bryant Heater & Mfg. Co., Cleveland, O.
Central Radiator Co., New York, N. Y.
Cesuco—Central Supply Co., Minneapolis, Minn.
Cox, Abram, Company, Philadelphia, Pa.
Crescent—Charles Dargent, Brooklyn, N. Y.
Excelso Specialty Works, Buffalo, N. Y.
F. A. T.—Frederick A. Tyler, Albany, N. Y.
Ferguson & Lange Foundry Co., Chicago, Ill.
Gem—Davidson Heating & Construction Co., Hanover, Pa.
Giblin & Co., Utica, N. Y.
Holden—B. & F. Manufacturing Co., Inc., Indianapolis, Ind.
Hotstream Heater Co., Cleveland, O.
Illinois Malleable Iron Co., Chicago, Ill.
International Heater Co., Utica, N. Y.
Melbye Bros. Co., Chicago, Ill.
Mueller, L. J., Furnace Co., Milwaukee, Wis.
Putnam Foundry & Machine Co., Putnam, Conn.
Stack Heater Co., Boston, Mass.
Taco—Thermal Appliance Co., Inc., New York, N. Y.
Tyler, Frederick A., Albany, N. Y.

HEATERS, WATER, COAL AND WOOD BURNING.

Abendroth Bros., Fort Chester, N. Y.
Adsco—American District Steam Co., North Tonawanda, N. Y.
Alberger Heater Co., Buffalo, N. Y.
Andrews Heating Co., Minneapolis, Minn.
Bacon Heater Mfg. Co., Cleveland, O.
Beilman Water Heater Co., Inc., The, Buffalo, N. Y. (with automatic control). "Seamans."
Berryman—Ernst & Co., Newark, N. J.
Birchfield Boiler Co., Tacoma, Wash.
Borden Stove Co., Philadelphia, Pa.
Bros, Wm., Boiler & Mfg. Co., Minneapolis, Minn.
Bungalow—Davidson Heating & Construction Co., Hanover, Pa.
Burnham Boiler Corporation, Irvington, N. Y.
Central Radiator Co., New York, N. Y.
Clean E-Z—The Sims Co., Erie, Pa.
Cle-Bar—Cleghorn & Co., Boston, Mass.
Clow's Triumph—James B. Clow & Sons, Chicago, Ill.
Cox, Abram, Company, Philadelphia, Pa.
Domestic—Keystone Boiler & Foundry Co., Landisville, Pa.
F-W Co.—The Fuller-Warren Co., Milwaukee, Wis.
Freed Heater Co., Collegeville, Pa.
Geyser—Thatcher Furnace Co., New York, N. Y.
Globe Stove & Range Co., The, Kokomo, Ind.
Golden Crown—The Stuart & Peterson Co., Burlington, N. J.
Hoosier—Flint & Walling Mfg. Co., Kendallville, Ind.
Hudson Boiler Mfg. Co., The, Hoboken, N. J.
Ideal—American Radiator Co., New York, N. Y.
International Heater Co., Utica, N. Y.
Illinois Malleable Iron Co., Chicago, Ill. "Aetna," "Illinois."
Junior—Herbert Boiler Co., The, Chicago, Ill.
Lattner, P. M., Mfg. Co., Cedar Rapids, Ia.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
National Radiator Corporation, Johnstown, Pa.
National Pipe Bending Co., New Haven, Conn.
Pierce Giant—Pierce, Butler & Pierce Mfg. Co., New York, N. Y.
Radium—Frank Prox Co., Terre Haute, Ind.
Richmond Radiator Co., New York, N. Y.
Reading Foundry & Supply Co., Reading, Pa.
Ross Heater & Mfg. Co., Buffalo, N. Y.
Royal—Hart & Crouse Co., Utica, N. Y.
Sims Co., The, Erie, Pa.
Smith, H. B., Co., Westfield, Mass.
Standard—Giblin & Co., Utica, N. Y.
Sterling—Sill Stove Works, Rochester, N. Y.
Stewart—Fuller & Warren Co., Troy, N. Y.
Sunray—U. S. Radiator Corp., Detroit, Mich.
Syracuse Steam Generator, Inc., Syracuse, N. Y.
Tabasco—Kewanee Boiler Co., Kewanee, Ill.
Utility—Standard Steam Specialty Co., New York, N. Y.
Volunteer—Wm. H. Page Boiler Co., New York, N. Y.
Wainwright—Alberger Pump & Condenser Co., New York, N. Y.
Walker & Pratt Mfg. Co., Boston, Mass.
Washout—The Crestline Mfg. Co., Crestline, O.
Weil-McLain Co., Michigan City, Ind.
Weiskittel, A., & Son Co., Baltimore, Md.
Whitacre Boiler Co., Wellsville, O.
Whitlock Coil Pipe Co., Hartford, Conn
Wilks, S., Mfg. Co., Chicago, Ill.

HEATERS, WATER, ELECTRIC.

Aetna Electric Appliance Co., Dexter, Maine. "Hot Vent."
American Beauty—American Electrical Heater Co., Detroit, Mich.
Automatic Electric Heater Co., Philadelphia, Pa. "Sepco."
Chicago Automatic Electric Boiler Co., Chicago, Ill.
C-H—The Cutler-Hammer Mfg. Co., Milwaukee, Wis.
Christian Electrical Corp., Detroit, Mich.
Edison Electric Appliance Co., Inc., Chicago, Ill.
Electric Boilerette—Electric Boiler Corp., Cambridge, Mass.
Electric Heating & Mfg. Co., Seattle, Wash. "Coppersert."
Electro-Boil—Milwaukee Mfg. Co., Milwaukee, Wis.
Federal Water Heater Co., Los Angeles, Cal.
Hynes & Cox Electric Corp., Albany, N. Y.
Grinnell Electric Heater Co., Grinnell, Ia.
Hot-Flo Electric Co., New York, N. Y.
Instant Electric Water Heater Co., Bridgeport, Conn.
Insto—Max Wocher & Son Co., The, Cincinnati, O.
Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Scanlan Handy Heater Co., Inc., Bloomington, Ill. "Handy Heater."

HEATERS, WATER, GAS, FOR BARBERS.

Duluth Water Heater Co., Duluth, Minn.
Maywood Water Heater Co., Maywood, Ill. (Trade names—Economy, Perfection, Proviso.)
Eureka Water Heater Co., Chicago, Ill.
Gem Oil Burner Co., Lincoln, Neb.
Jiffy Water Heater Co., St. Louis, Mo.
Troop Mfg. Co., Pittsburgh, Pa.
Vulcan—Wm. M. Crane Co., New York, N. Y.
Weiskittel, A., & Son Co., Baltimore, Md.
Wilks, S., Mfg. Co., Chicago, Ill.

HEATERS, WATER, GAS, AUTOMATIC AND INSTANTANEOUS.

Acme Specialty Mfg. Co., The, Toledo, O.
Acme—The Instantaneous Water Heater Co., Kalamazoo, Mich.
American Beauty—American Heater Corp., St. Louis, Mo.
American Stove Co., St. Louis, Mo.
Barker Factory, The, Norwalk, Conn.
Beilman Water Heater Co., Inc., The, Buffalo, N. Y. (Trade names—"Beilman-Seamans," "Seamans."
Berryman—Ernst & Co., Newark, N. J.
Bryant Heater & Mfg. Co., The, Cleveland, O.
Clow, James B., & Sons, Chicago, Ill.
Coast Heater Mfg. Co., Monrovia, Cal.
Crane Co., Chicago, Ill. (Trade names—Keystone, Premier.)
Detroit—New Detroit Heater Co., Detroit, Mich.
Economy Heater Co., Chicago, Ill.
Esda Mfg. Co., New York, N. Y.
Eureka Water Heater Co., Chicago, Ill.
Ever Hot Heater Co., The, Detroit, Mich.
Federal Water Heater Co., Los Angeles, Cal.
Fire King—A. Weiskittel & Son, Baltimore, Md.
Fleur De Lis—Boston Steam Specialty Co., Boston, Mass.
General Water Heater Corp., Los Angeles, Cal. (Trade names—De Luxe, Regal.)
Geneva Water Heater Co., The, Geneva, Ill. (Trade names—Geneva, Model, Toombs.)
Glenn Mfg. Co., St. Charles, Ill.

Goodman Automatic Water Heater Co., Brooklyn, N. Y.
Go-Ro Water Heater Co., Inc., New Orleans, La.
Hoffmann Heater Co., The, Lorain, O.
Humphrey Co., Div. of Ruud Mfg. Co., Kalamazoo, Mich. (Trade names—Humphrey, Utility 4.)
Johnson, J. D., Co., Philadelphia, Pa. "Saxon."
Jumbo Heater & Mfg. Co., Cleveland, O.
Koil-Les—Koil-Les Heater Co., Geneva, Ill.
Kompak Co., The, New Brunswick, N. J.
Lattner, P. M., Mfg. Co., Cedar Rapids, Ia.
Lawler Waterfeed & Damper Co., Mount Vernon, N. Y.
Lawson Mfg. Co., Pittsburgh, Pa.
Lovekin Water Heater Co., Philadelphia, Pa.
Merion—John Wood Mfg. Co., Conshohocken, Pa.
Middletown Mfg. Co., The, Middletown, O.
Newell—Newell Mfg. Co., Irwin, Pa.
Parrott Heater Co., Detroit, Mich.
Peerless—Economy Heater Co., Chicago, Ill.
Pittsburgh Water Heater Co., Pittsburgh, Pa. (Trade names—Bungalow, Pittsburgh Lion.)
Powers Regulator Co., Chicago, Ill.
Radke—Safety Water Heater Co., Chicago, Ill.
Rapid Heater Co., Grand Rapids, Mich.
Rex—Cleveland Heater Co., Cleveland, O.
Royal—Bastian-Morley Co., LaPorte, Ind.
Ruud Mfg. Co., Pittsburgh, Pa.
Sands Mfg. Co., The, Cleveland, O.
S-S—Milwaukee Mfg. Co., Milwaukee, Wis.
Stack Heater Co., Boston, Mass.
Taco—Thermal Appliance Co., Inc., New York, N. Y.
Thermax—National Stove Co., Lorain, O.
Troop Mfg. Co., Pittsburgh, Pa.
Universal Heater Mfg. Co., St. Louis, Mo. (Trade names—Jiffy, Servitor.)
Universal—Rotary Mfg. Co., Los Angeles, Cal.
Welsbach Co., Gloucester, N. J.
White Water Heater Co., Los Angeles, Cal.
Van Zandt Gas Appliance Co., St. Louis, Mo.

HEATERS, WATER, GAS ENGINE EXHAUST

Sims Co., Erie, Pa.
Whitlock Coil Pipe Co., Hartford, Conn. (Trade names—American, Whitlock.)

HEATERS, WATER, GAS, RANGE BOILER.

A. B. Stove Co., Battle Creek, Mich.
Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American Stove Co., St. Louis, Mo.
Bull's Eye—The Dunham Co., Berea, O.
Cleveland Heater Co., Cleveland, O. (Trade names—Chief, Rex.)
Cino—Specialty Device Co., The, Cincinnati, O.
Clow, James B., & Sons, Chicago, Ill. Trade names—Planet, Radium, Star, Torrid.)
Cox, Abram, Co., Philadelphia, Pa.
Day and Night Solar Heater Co., Los Angeles, Cal. (Trade names—Bailey, Triangle.)
Economy Heater Co., Chicago, Ill.
Economy Stove Co., Cleveland, O.
Electric Weld—John Wood Mfg. Co., Conshohocken, Pa.
Elliott Water Heater Co., Inc., Brooklyn, N. Y.
Estate Stove Co., The, Hamilton, O.
Eureka Water Heater Co., Chicago, Ill.
Fire King—A. Weiskittel & Son, Baltimore, Md.
Garland—The Michigan Stove Co., Detroit, Mich.
Go-Ro Water Heater Co., Inc., New Orleans, La.
Hoffman Heater Co., The, Lorain, O.
Holyoke Heater Co., Holyoke, Mass.
Holden—Crane Co., Chicago.
Hotstream Heater Co., Cleveland, O.
Hudson Boiler Mfg. Co., Hoboken, N. J.
Humphrey Co., Div. of Ruud Mfg. Co., Kalamazoo, Mich.
Jewel—Detroit Stove Works, Detroit, Mich.
Jumbo Heater & Mfg. Co., The, Cleveland, O.
Mears-Kane-Ofeldt, Inc., Philadelphia, Pa. (Trade names—Eagle (copper coil), Perfection (cast brass.)
Kompak Co., The, New Brunswick, N. J.
Koven, L. O., & Bro., Jersey City, N. J.
Lawler Waterfeed & Damper Co., Mount Vernon, N. Y.
Lawson Mfg. Co., Pittsburgh, Pa.
Liberty—Cooper Sanitary Mfg. Co., Philadelphia, Pa.
Martin, Fort Wayne, Ind. (Trade names—Romarco Junior, Wayne Wizard.)
Marvel—Bastian-Morley Co., LaPorte, Ind.
Marvel—The Mustee Water Heater Co., Cleveland, O.
Maywood Water Heater Co., Maywood, Ill.
Meerhoff, Wm. H., Richmond, Ind.
Miami—The Middletown Mfg. Co., Middletown, O.
Monitor—General Water Heater Corp., Los Angeles, Cal.
Odin Stove Mfg. Co., Erie, Pa.
Ohio Heater Co., The, Columbus, O. "Ohio," "Rolf."
Oriole—Baltimore Gas Appliance & Mfg. Co., Baltimore, Md.
Peerless—Peerless Range Boiler Corp., Chicago, Ill.
Perkins—Oliver & Howland Co., Springfield, Mass.
Pittsburgh Water Heater Co., Pittsburgh, Pa. (Trade names—Lion, Pittsburgh Lion.)
Reading Foundry & Supply Co., Reading, Pa.
Ruud Mfg. Co., Pittsburgh, Pa.
Sands Mfg. Co., Cleveland, O. (Trade names—Augmore, Sands.)
Stack Heater Co., Boston, Mass.
Straight Line—E. C. Merrill, Pittsburgh, Pa.
Volunteer—The Wm. H. Page Boiler Co., New York, N. Y.
Troop Mfg. Co., Pittsburgh, Pa.
Vulcan Tool & Machine Works, Inc., Newburgh, N. Y.
Vulcan—Wm. M. Crane Co., New York, N. Y.
Universal Heater Mfg. Co., St. Louis, Mo. (Trade names—High Speed, Jiffy Duplex.)
Wilks, S., Mfg. Co., Chicago, Ill.

HEATERS, WATER, NATURAL GAS.

Beilman Water Heater Co., Inc., The, Buffalo, N. Y. "Beilman-Seamans."
Pittsburgh—Pittsburgh Water Heater Co., Pittsburgh, Pa.

HEATERS, WATER, GASOLINE.

Acme Specialty Mfg. Co., Toledo, O.
American Stove Co., St. Louis, Mo.
Bastian-Morley Co., LaPorte, Ind. (Trade names—Royal, Superior.)
Detroit—New Detroit Heater Co., Detroit, Mich.
Duluth Water Heater Co., Duluth, Minn.
Humphrey Co., Kalamazoo, Mich.
Lawson Mfg. Co., Pittsburgh, Pa.
Marvel—Mustee Water Heater Co., Cleveland, O.
Maywood Water Heater Co., Maywood, Ill.
Peerless Boiler Co., Chicago, Ill.
Peerless Range Boiler Co., Chicago, Ill.
Sands Mfg. Co., Cleveland, O.
Vapo—The Vapo Stove Co., Lima, O.

HEATERS, WATER, KEROSENE OR OIL.

Aeroil Burner Co., Inc., Union Hill, N. J.
American Stove Co., St. Louis, Mo.
Continental Oil Burner Corp., Chicago, Ill.
Detroit—New Detroit Heater Co., Detroit, Mich.
Economy—Maywood Water Heater Co., Maywood, Ill.
Florence Stove Co., Gardner, Mass.
Gem—Bastian-Morley Co., LaPorte, Ind.
Holyoke Heater Co., Holyoke, Mass.
Hotstream Heater Co., Cleveland, O.
Lindemann, A. J., & Hoverson Co., Milwaukee, Wis. "Kerogas."
Marvel—Mustee Water Heater Co., Cleveland, O.
National Pipe Bending Co., New Haven, Conn.
Page, Wm. H., Boiler Works, New York, N. Y.
Perfection—Maywood Water Heater Co., Maywood, Ill.
Perfection—Perfection Stove Co., Inc., Cleveland, O.
Sands Mfg. Co., Cleveland, O.
Simmons, John Co., New York, N. Y.
Whitacre Boiler Co., Wellsville, O.
Witt, G. E., Co., Inc., San Francisco, Cal.

HEATERS, WATER, PORTABLE, FOR CONTRACTORS.

Aeroil Burner Co., Inc., Union Hill, N. J.
Londelius, C. A., & Sons Co., Inc., Chicago, Ill.

HEATERS, WATER, STEAM.

Alberger Pump & Condenser Co., New York, N. Y.
American District Steam Co., North Tonawanda, N. Y.
Burt—White Mfg. Co., Newark, N. J.
Central Automatic Sprinkler Co., Philadelphia, Pa.
D. H. & C.—Davidson Heating & Const. Co., Hanover, Pa.
Deckert—V. F. Deckert Mfg. Co., Minneapolis, Minn.
Economy Faucet Co., Providence, R. I.
Excelso Specialty Works, Buffalo, N. Y.
Hayden & Derby Mfg. Co., New York, N. Y.
Lawler Waterfeed & Damper Co., Mt. Vernon, N. Y.
Matthews Steamix—W. N. Matthews Corporation, Inc., St. Louis, Mo.
Moffatt Feed Water Heater & Purifier Co., Dayton, O.
Noiseless—American Injector Co., Detroit, Mich.
Paracoil—Davis Engineering Corp., New York, N. Y.
Patterson—The Patterson-Kelley Co., New York, N. Y.
Penberthy Injector Co., Detroit, Mich.
Powers Regulator Co., Chicago, Ill.
Riverside—Riverside Boiler Works, Inc., Cambridge, Mass.
Russell, Booster—The Griscom-Russell Co., New York, N. Y.
Sims Co., Erie, Pa. (Trade names—Grant, Jackson, Jefferson, McKinley, Monroe.)
Sure Hot—M. S. Little Mfg. Co., Hartford, Conn.
Stack—Stack Heater Co., Boston, Mass.
Taco—Thermal Appliance Co., Inc., New York.
Whitlock—The Whitlock Coil Pipe Co., Hartford, Conn.

HEATERS, WATER, WASTE HEAT.

Harris, Arthur, & Co., Chicago, Ill.
Hoppes Mfg. Co., Springfield, O.
Whitacre Boiler Co., Wellsville, O.
Swartwout Co., The, Cleveland, O.

HEATERS, WATER STORAGE, STEAM.

Buffalo—Alberger Heater Co., Buffalo, N. Y.
Keating, E. F., Pipe Bending & Supply Co., Hartford, Conn.
National Pipe Bending Co., New Haven, Conn.
Patterson-Kelley Co., New York, N. Y.
Russell—The Griscom-Russell Co., New York, N. Y.
Stack Supreme—Stack Heater Co., Boston, Mass.
Whitlock Coil Pipe Co., Hartford, Conn.

HELMETS, AMMONIA AND SMOKE.

Elmer, H. N., Chicago, Ill.
Eveready—Servus Rescue Equipment Co., Newark, N. J.
National Helmet Co., New York, N. Y.
Paul—American Atmos Corp., Pittsburgh, Pa.
Protecto, Eveready—Protecto Safety Appliance Co., Newark, N. J.
Pulmosan—Pulmosan Safety Equipment Co., Brooklyn, N. Y.
Safety Equipment Service Co., The, Cleveland, O.
Vajen—The Vajen Helmet Co., Richmond, Ind.
Wheeler—F. H. Wheeler Mfg. Co., Chicago, Ill. (Asbestos.)
Woodhouse—Woodhouse Mfg. Co., New York, N. Y.

HELMETS, ARC WELDING.

C. E. S. Co.—Chicago Eye Shield Co., Chicago, Ill.
Electric Arc Cutting & Welding Co., Newark, N. J.
Hard Boiled—E. D. Bullard, San Francisco, Calif.
Merry Optical Co., Kansas City, Mo.
Protecto Safety Appliance Co., Newark, N. J
Pulmosan—Pulmosan Safety Equipment Co., Brooklyn, N. Y.
Safety Equipment Service Co., The, Cleveland, O.
Wilson Welder & Metals Co., Inc., Hoboken, N. J.
Willson Goggles, Inc., Reading, Pa.

HELMETS, MINERS' RESCUE.

Draeger, Paul—American Atmos Corp., Pittsburgh, Pa
Fleuss-Proto—H. N. Elmer, Chicago, Ill.
Wheeler—F. H. Wheeler Mfg. Co., Chicago, Ill.

HELMETS, SAND BLAST.

Betton—J. M. Betton, Jersey City, N. J.
C. E. S. Co.—Chicago Eye Shield Co., Chicago, Ill.
Pulmosan—Pulmosan Safety Equipment Co., Brooklyn, N. Y.

HINGES, CLOSET SEAT.

American Brass Co., Bridgeport, Conn.
American Brass & Copper Co., The, New York, N. Y.
American Foundry & Mfg. Co., St. Louis, Mo.
American Sanitary Mfg. Co., Abingdon, Ill.
Ampinco—American Pin Co., Waterbury, Conn.
Atlas—Knott Mfg. Co., Tell City, Ind.
Berglas, M. P., Mfg. Co., Brooklyn, N. Y.
Brey & Krause Mfg. Co., Allentown, Pa.
B. R. E. Mfg. Co., Boston, Mass.
C. & D.—Coyne & Delany Co., Brooklyn, N. Y.
Chicago—Union Brass & Metal Mfg. Co., St. Paul, Minn.
Columbus Brass Co., The, Columbus, O. (Trade names—Columbus, Eclipse.)
Edwardsville Brass Co., Edwardsville, Ill.
Eljer Co., Ford City, Pa.
Enterprise Brass Works, Muskegon, Mich.
Exeter Brass Works, Exeter, N. H.
Federal-Huber Co., Chicago, Ill. (Trade names—Adrian, Continental, Government, Box, Casco, Nilo, New York.)
Frost Mfg. Co., Kenosha, Wis.
Glenn Mfg. Co., St. Charles, Ill.
Grand Haven Brass Foundry Co., Grand Haven, Mich.
Hansen Brass Mfg. Co., Grand Rapids, Mich.
Haydenville Co., The, Haydenville, Mass.
I. X. L. Pump & Mfg. Co., Inc., Philadelphia, Pa.
Locke, Stevens & Co., Boston, Mass.
Maxco—Sherwood Brass Works, Detroit, Mich.
Miller, Chas. A., Co., Sturgis, Mich.
M. V. B.—Morency-Van Buren Co., Sturgis, Mich.
Non-Soil—C. F. Church Mfg. Co., Holyoke, Mass.
Northern Indiana Brass Co., Elkhart, Ind.
Peck Bros. & Co., New Haven, Conn.
Peerless Selling Co., Indianapolis, Ind.
Peru Brass & Mfg. Co., Peru, Ind.
Plume & Atwood Mfg. Co., The, Waterbury, Conn.
Rex—Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Root Co., The, Bristol, Conn.
Sanitex—Chicago Spring Hinge Co., Chicago, Ill.
Sargent & Co., New Haven, Conn.
Schwab Bros. Co., New York, N. Y. "Emery Self Raising."
Simplo—J. L. Mott Iron Works, New York, N. Y.
Trojan Brass Mfg. Co., The, Cincinnati, O.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
Union Metal Works, Chelsea, Mass.
Waterbury Mfg. Co., Waterbury, Conn.
Woodward-Wanger Co., Philadelphia, Pa.

HINGES, CLOSET STALL.

American Foundry & Mfg. Co., St. Louis, Mo.
Brasco—The Columbus Brass Co., Columbus, O.
Dent Hardware Co., Bangor, Pa.
Edwardsville Brass Works, Edwardsville, Ill.
Federal-Huber Co., Chicago, Ill.
McIntire, F. N., Brass Works, Boston, Mass.
Newman Mfg. Co., Cincinnati, O.
Speakman Co., Wilmington, Del.
Stanley Works, The, New Britain, Conn.
Triplex—Chicago Spring Hinge Co., Chicago, Ill.

HOBS, GEAR, SPUR, SPIRAL AND WORM.

American Tool & Machine Co., Boston, Mass.
Barber-Colman Co., Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Earle Gear & Machine Co., Philadelphia, Pa.
Goddard & Goddard Co., Chicago, Ill.
Illinois Tool Works, Chicago, Ill.
Lees-Bradner Co., Cleveland, O.
Michigan Tool Co., Detroit, Mich.
Meisselbach-Catucci Mfg. Co., Newark, N. J
Niles-Bement-Pond Co., New York, N. Y.
Oliver Iron & Steel Corp., Pittsburgh, Pa.
Union Twist Drill Co., Athol, Mass.

HOBS, SPROCKET.

Barber-Colman Co., Rockford, Ill.

HODS, STEEL, FOR SHOP USE.

Steel Basket Co., Cedar Rapids, Iowa.

HOES, RAKES, FORKS AND MATTOCKS.

Beall Bros., Alton, Ill.
Collins Company, The, Collinsville, Conn.
Diamond, Fairmount, Otsego, True Temper, Geneva, Batcheller, Ely, Fort Madison, Harriman, Southern, Withington—The American Fork & Hoe Co., Cleveland, O.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Kelly Axe Mfg. Co., Charleston, W. Va.
Klein-Logan Co., Pittsburgh, Pa.
Mann, James H., Co., Lewistown, Pa.
Oliver Iron & Steel Corp., Pittsburgh, Pa.
Quickwerk—The Warren Tool & Forge Co., Warren, Ohio.
Sandusky—Sandusky Tool Corp., Sandusky, O.
Union Furnace Mfg. Co., Union Furnace, Pa.

HOGS, OR WASTE WOOD GRINDERS.

Diamond—Diamond Iron Works, Minneapolis, Minn.
Harvey—Lufkin Foundry & Machine Co., Lufkin, Tex.
Mitts & Merrill, Saginaw, Mich. "M. M."
Valk & Murdock Co., Charleston, S. C.
Wheland—The Wheland Co., Chattanooga, Tenn.

HOISTS, ASH.

Amco—Alvey Mfg. Co., St. Louis, Mo.
Burke Engineering Co., Chicago, Ill.
Chas. K. Ernst, Buffalo, N. Y. "The Ernst."
Link-Belt Company, Chicago and Philadelphia.
Morris, Herbert, Inc., Buffalo, N. Y.
Mundy—J. S. Mundy Hoisting Engine Co., Newark, N. J.
Washburn & Granger, New York.
Weller Mfg. Co., Chicago, Ill.

HOISTS, BELT POWER.

American—American Hoist & Derrick Co., St. Paul, Minn.
Atlas Engineering Co., Milwaukee, Wis.
Carlin, John H., Machine Co., Pittsburgh, Pa.
Clyde-Grade—Clyde Iron Works, Duluth, Minn.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y
Domestic—Domestic Engine & Pump Co., Shippensburg, Pa.
Erie Clutch & Pulley Co., Erie, Pa. "Reliable," "Erie."
Jordan—Jordan Bros., Inc., New York, N. Y.
Link-Belt Company, Chicago and Philadelphia.
Mead-Morrison Mfg. Co., East Boston, Mass.
O. & S.—Orr & Sembower, Inc., Reading, Pa.
Reliable—National Hoisting Engine Co., Harrison, N. J.
Star Machinery Co., Seattle, Wash.
Street Brothers Machine Works, Chattanooga, Tenn.
Superior Iron Works, Superior, Wis.
Weller Mfg. Co., Chicago, Ill.

HOISTS, CARGO AND DOCK

Dake—Dake Engine Co., Grand Haven, Mich.
Lidgerwood Mfg. Co., New York.
Loane—Loane Engineering Co., Baltimore, Md.
O. & S.—Orr & Sembower, Inc., Reading, Pa.
Schramm, Inc., West Chester, Pa.
Shepard Electric Crane & Hoist Co., Montour Falls, N. Y.
Superior Iron Works Co., Superior, Wis.
Street Brothers Machine Works, Chattanooga, Tenn.
Vulcan—Vulcan Mfg. Co., Seattle, Wash.
Weller Mfg. Co., Chicago, Ill.
Wellman-Seaver-Morgan Co., Cleveland, O.

HOISTS, CHAIN.

(See also "Blocks, Chain.")

Acme—The Franklin Moore Co., Winsted, Conn.
American Monorail Co., Cleveland, Ohio.
Box Crane & Hoist Corp., Philadelphia, Pa.
Century—Century Hoist Mfg. Co., Lock Haven, Pa.
Champion—Northern Engineering Works, Detroit, Mich.
Channon, James H., Mfg. Co., Chicago, Ill.
Chisholm & Moore Mfg. Co., Cleveland, O. "Ammunition," "Cyclone," "Moore Anti Friction," "Standard Screw."
Cleveland Chain Mfg. Co., Cleveland, Ohio.
Dickerman Hoist Mfg. Co., Cleveland, Ohio.
Differential—The Franklin Moore Co., Winsted, Conn
Hobbs, Clinton E., Co., Boston, Mass. (Trade names—Differential, Duplex, Weston.)
King—A. R. King Mfg. Co., Kingston, N. Y.
Maris Bros., Philadelphia, Pa.
Morris—Herbert Morris, Inc., Buffalo, N. Y.
New Jersey Foundry & Machine Co., Div., New York, N. Y.
Peerless—Harrington Company, Philadelphia, Pa.
Pittsburgh Gage & Supply Co., Pittsburgh, Pa. "BestofAll."
Reading—Reading Chain & Block Corp., Reading, Pa. (multiple gear).
Richards-Wilcox Mfg. Co., Aurora, Ill.
Round, D., & Son, Cleveland, Ohio. "Round Differential, Superior, Weston."
Standard—Wright Mfg. Co., Lisbon, O.
Tribloc—Ford Chain Block Co., Philadelphia, Pa.
Wright—Wright Mfg. Co., Lisbon, O. (High Speed Screw and Differential.)
Yale—The Yale & Towne Mfg. Co., Stamford, Conn. (Screw-geared, spur-geared, differential.)

HOISTS, COAL HANDLING.

Bartlett, C. O., & Snow Co., Cleveland, Ohio.
Brown Clutch Co., The, Sandusky, O.
Carlin, John H., Machine Co., Pittsburgh, Pa.
Danville—Robt. Holmes & Bros., Inc., Danville, Ill.
Hayward—The Hayward Co., New York, N. Y.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Lidgerwood Mfg. Co., New York, N. Y.
Link-Belt Company, Chicago and Philadelphia.
Palmer-Bee Company, Detroit, Mich.

HOISTS, COMBINATION, ELECTRIC AND GASOLINE.

Street Brothers Machine Works, Chattanooga, Tenn.

HOISTS AND CONVEYORS, COMBINED.

Harris—C. S. Harris Co., Rome, N. Y.

HOISTS, CONTRACTORS'.

Boss—American Cement Machine Co., Inc., Keokuk, Ia.
Brown, Morgan—Brown Clutch Co., Sandusky, O.
C. H. & E.—C. H. & E. Manufacturing Co., Inc., Milwaukee, Wis.
Clyde Iron Works, Duluth, Minn.
Ebel—Lansing Motor & Pump Co., Lansing, Mich. (electric and gasoline.)
Harnischfeger Corp., The, Milwaukee, Wis.
Havana Mfg. Co., Havana, Ill.
Lansing Co., Lansing, Mich.
Lidgerwood Mfg. Co., New York, N. Y.
Maine Electric Co., The, Portland, Me.
Moffatt Machinery Mfg. Co., Charlotte, N. C.
National Hoisting Engine Co., Harrison, N. J.
O. & S.—Orr & Sembower, Inc., Reading, Pa.
Parker, S. E., Chicago, Ill.
Pneumelectric Corp., Syracuse, N. Y.
Reliable Erie—Erie Clutch & Pulley Co., Erie, Pa.
Sasgen Derrick Co., Chicago, Ill.
Street Brothers Machine Works, Chattanooga, Tenn.
Stanley Hoist & Machine Co., New York.
Universal Hoist & Mfg. Co., Cedar Falls, Iowa. (Trade names—Double Drum, Single Drum, Ideal Non-Reversible, Reversible Ideal.)
Winterhoff Tool & Machine Co., Elkhart, Ind.
Wonder—Construction Machinery Co., Waterloo, Ia.

HOISTS, ELECTRIC.

Alco—Albany Iron Works, Albany, Ore.
Allis-Chalmers Mfg. Co., Milwaukee, Wis.
American—American Hoist & Derrick Co., St. Paul, Minn.
American Monorail Co., Cleveland, Ohio.

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Brown Hoisting Machinery Co., The, Cleveland, O.
Buffalo Hoist & Derrick Co., Buffalo, N. Y.
Carlin, John H., Machine Co., Pittsburg, Pa.
Case—Crane Engineering Co., Columbus, O
C. M.—The Chisholm-Moore Mfg. Co., Cleveland, O.
Cleveland Crane & Engineering Co., Wickliffe, O.
Clyde-Grade—Clyde Iron Works, Duluth, Minn.
Conco—H. D. Conkey & Co., Mendota, Ill.
Connellsville Mfg. & Mine Supply Co., Connellsville, Pa.
Crawford & McCrimmon Co., Brazil, Ind.
Detroit Hoist & Machine Co., Detroit, Mich.
Diamond Machine Co., Monongahela, Pa.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Domestic—Domestic Engine & Pump Co., Shippensburg, Pa.
Ebel—Lansing Motor & Pump Co., Lansing, Mich.
Erie Clutch & Pulley Co., Erie, Pa. "Reliable," "Erie."
Euclid—Euclid Crane & Hoist Co., Euclid, O.
Flory—The S. Flory Mfg. Co., Bangor, Pa.
Fridy Hoist & Machinery Co., Mountville, Pa.
G. & G.—Gillis & Geoghegan, New York, N. Y.
General Electric Co., Schenectady, N. Y.
F. Grote Mfg. Co., Evansville, Ind. "Grote."
Handiman—New Jersey Foundry & Machine Co., New York, N. Y.
Harnischfeger Corp., The, Milwaukee, Wis.
Ingersoll-Rand Co., New York, N. Y.
Johnston & Jennings Co., The, Cleveland, O.
Lake Shore Engine Works, Marquette, Mich.
Lambert Hoisting Engine Co., Newark, N. J.
Leach Company, The, Oshkosh, Wis.
Lidgerwood Mfg. Co., New York, N. Y.
Lift About—Shepard Electric Crane & Hoist Co., Montour Falls, N. Y.
Litchfield Foundry & Machine Co., Litchfield, Ill.
Lo-Hed—American Engineering Co., Philadelphia, Pa.
Maris Bros., Philadelphia, Pa.
McCollum Hoist & Mfg. Co., Downers Grove, Ill. "Universal."
Mead-Morrison Mfg. Co., East Boston, Mass
Milwaukee Electric Crane & Mfg. Co., Milwaukee, Wis. "Milwaukee."
Morgan Engineering Co., Alliance, O
Morris—Herbert Morris, Inc., Buffalo, N. Y.
Motohoist—Drake Electric Hoist Co., Friendship, N. Y.
Mundy Hoisting Engine Co., J. S., Newark, N. J.
National—National Hoisting Engine Co., Harrison N J
New Jersey Foundry & Machine Co., Div., New York, N. Y.
Nordberg Mfg. Co., Milwaukee, Wis.
Northern Engineering Works, Detroit, Mich.
O. K.—O. K. Clutch & Machinery Co., Columbia, Pa.
Orr & Sembower, Inc., Reading, Pa.
Ottumwa Iron Works, Ottumwa, Iowa.
Parker, S. E., Chicago, Ill.
Pneumelectric—Pneumelectric Corp., Syracuse, N. Y.
Reading Crane & Hoist Works, Reading, Pa.
Reading—Reading Chain & Block Corp., Reading, Pa.
Roeper—Roeper Crane & Hoist Works, Inc., Reading, Pa.
Schramm, Inc., West Chester, Pa.
Shaw—Manning, Maxwell & Moore, Inc., New York, N. Y
Sprague Electric Hoist Division, The, of the Shepard Electric Crane & Hoist Co., New York, N. Y.
Spur Geared—Franklin Moore Co., Winsted, Conn.
Star Machinery Co., Seattle, Wash.

Stine, S. R., Osceola Mill, Pa.
Street Brothers Machine Works, Chattanooga, Tenn.
Thomas Elevator Co., Chicago, Ill.
United Iron Works, Kansas City, Mo.
Western Electric Co., Inc., Chicago, Ill.
Wright Mfg. Co., Lisbon, O.
Yale Triplex—Yale & Towne Mfg. Co., Stamford, Conn.

HOISTS, FRICTION.

Link-Belt Co., Chicago and Philadelphia.
Morris—Herbert Morris, Inc., Buffalo, N. Y.
Mundy—J. S. Mundy Hoisting Engine Co., Newark, N. J.
O. & S.—Orr & Sembower, Inc., Reading, Pa.
Porter, J. E., Corporation, Ottawa, Ill.

HOISTS, FURNACE DOOR.

Lewis—Link-Belt Co., Chicago and Philadelphia.

HOISTS, GAS ENGINE DRIVEN.

(See also "Engines, Hoisting, Gasoline.")

Boss—American Cement Machine Co., Keokuk, Iowa.
Brown and Little Giant—The Brown Clutch Co., Sandusky, O.
Carlin, John H., Machine Co., Pittsburgh, Pa.
Castle—A. M. Castle Engineering Co., La Crosse, Wis
Clyde Iron Works, Duluth, Minn.
Ebel—Lansing Motor & Pump Co., Lansing, Mich.
Fairbanks, Morse & Co., Chicago, Ill.
Fairbanks Co., The, New York, N. Y. "Fairbanks."
Jumbo—Nelson Bros. Co., Saginaw, Mich.
Leach Company, The, Oshkosh, Wis.
Lidgerwood Mfg. Co., New York, N. Y.
Mead-Morrison Mfg. Co., East Boston, Mass.
Mundy Hoisting Engine Co., J. S. Newark, N. J.
Novo Engine Co., Lansing, Mich. "Novo."
O. K.—O. K. Clutch & Machinery Co., Columbia, Pa.
Orr & Sembower, Inc., Reading, Pa.
Parker, S. E., Chicago, Ill.
Reliable Erie—Erie Clutch & Pulley Co., Erie, Pa.
Schramm, Inc., West Chester, Pa.
Standard—Mead-Morrison Mfg. Co., East Boston, Mass.
Street Brothers Machine Works, Chattanooga, Tenn.
Witte Engine Works Co., Kansas City, Mo.

HOISTS, GEARED TROLLEY.

Erie Clutch & Pulley Co., Erie, Pa. "Reliable," "Erie."
Euclid—Euclid Crane & Hoist Co., Euclid, O.
Jordan Bros., Inc., New York, N. Y.
Maris Bros., Philadelphia, Pa.
Richards-Wilcox Mfg. Co., Aurora, Ill.

HOISTS, HAND POWER

Armington Engineering Co., Wickliffe, Ohio. "Armington."
Box Crane & Hoist Corp., Philadelphia, Pa.
Byers, John F., Machine Co., Ravenna, O.
Chisholm-Moore Mfg. Co., The, Cleveland, O.
Cleveland Crane & Engineering Co., Wickliffe, O.
C. H. & E. Mfg. Co., Inc., Milwaukee, Wis.
C-K Co.—Cruse-Kemper Co., Ambler, Pa.
Conco—H. D. Conkey & Co., Mendota, Ill.
Dobbie Fdy. & Machine Co., Niagara Falls, N. Y
Erie Clutch & Pulley Co., Erie, Pa. "Erie," "Reliable."
Ford Chain Block Co., Philadelphia, Pa.
G. & G.—Gillis & Geoghegan, New York, N. Y.
Harrington Company, Philadelphia, Pa.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Maris Bros., Philadelphia, Pa.
Mason, Volney W., & Co., Providence, R. I.
Miller—Portable Tool Supply Co., Buffalo, N. Y.
Parker, S. E., Chicago, Ill.
Reading—Reading Chain & Block Corp., Reading, Pa.
Reliable Erie—Erie Clutch & Pulley Co., Erie, Pa.
Shepard Electric Crane & Hoist Co., Montour Falls, N. Y.
Wright Mfg. Co., Lisbon, O.
Yale & Towne Mfg. Co., Stamford, Conn.

HOISTS, HEAD GATE.

Coldwell, Wilcox Co., Newburgh, N. Y.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Trump—Trump Mfg. Co., Springfield, O.

HOISTS, HYDRAULIC.

Chambersburg Engineering Co., Chambersburg, Pa
Hydro—The Heil Co., Milwaukee, Wis.
Morgan Engineering Co., Alliance, O.
Southwark Foundry & Machine Co., Philadelphia Pa.

HOISTS, MONORAIL TROLLEY.

C. M.—Chisholm-Moore Mfg. Co., Cleveland, O.
Cleveland Crane & Engineering Co., Wickliffe, O.
Euclid—Euclid Crane & Hoist Co., Euclid, O.
Maris Bros., Philadelphia, Pa.
Manning, Maxwell & Moore, Inc., New York. "Shaw."
Shepard Electric Crane & Hoist Co., Montour Falls, N. Y.

HOISTS, PLATFORM.

Morris, Herbert, Inc., Buffalo, N. Y.

HOISTS, PNEUMATIC.

Brown Hoisting Machinery Co., Cleveland, O
Curtis Pneumatic Machinery Co., St. Louis, Mo.
Chicago Pneumatic Tool Co., New York, N. Y. "Little Giant."
Detroit Hoist & Machine Co., Detroit, Mich.
Ingersoll-Rand Co., New York, N. Y.
Little David—Worthington Pump & Machinery Corp., New York, N. Y.
Northern Engineering Works, Detroit, Mich.
Schramm, Inc., West Chester, Pa
Shepard Electric Crane & Hoist Co., Montour Falls, N. Y.
Waughoist—Denver Rock Drill Mfg. Co., Denver, Colo.

HOISTS, PORTABLE.

(See "Cranes, Portable.")

HOISTS, STEAM.

(See "Engines, Hoisting, Steam.")

HOISTS, TELESCOPIC.

Ernst—Chas. K. Ernst, Buffalo, N. Y.
G. & G.—Gillis & Geoghegan, New York, N. Y.

HOISTS, TWIN

Twin-Lift—Herbert Morris, Inc., Buffalo, N. Y.

HOISTS, WHIP.

Mason, Volney W. & Co., Inc., Providence, R. I.

HOLD-DOWNS, SHAPER OR MILLING MACHINE.

Red-E—The Ready Tool Co., Bridgeport, Conn.

HOLDERS, BAG.

Weller Mfg. Co., Chicago, Ill. "Mosher," "Improved Mosher," "Universal."

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HOLDERS, CANDLE.

Bernz, Otto, Co., Newark, N. J.
Johnson, Wm., Firm of, Newark, N. J.

HOLDERS, CARD, METAL.

Hadco—Haddon Bin Label Co., Haddon Heights, N. J

HOLDERS, CLOSET SEAT RUBBER.

Q. D.—Adam A. Long Machine Works, Rochester, N. Y.

HOLDERS, DIE AND TAP.

Apex Machine Co., The, Dayton, O.
Bay State—Bay State Tap & Die Co., Mansfield, Mass.
Beaman & Smith—Manning, Maxwell & Moore, Inc., New York, N. Y.
Braunsdorf-Muller Co., Elizabeth, N. J.
Bullock Mfg. Associates, Springfield, Mass.
Cleveland Twist Drill Co., Cleveland, O.
Geier, P. A., Co., Cleveland, O.
Geometric—Geometric Tool Co., The, New Haven, Conn.
Goodell-Pratt Co., Greenfield, Mass.
Little Giant—Greenfield Tap & Die Corp., Greenfield, Mass.
Paragon Tool Co., Seattle, Wash.
Procunier—Wm. L. Procunier, Chicago, Ill.
Threadwell Tool Co., The, Greenfield, Mass.
Wizard—McCrosky Tool Corp., Meadville, Pa.

HOLDERS, DRILL.

Armstrong—Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Bullock Mfg. Associates, Springfield, Mass. (extension).
Champion—Western Tool & Mfg. Co., Springfield, O.
Cleveland Twist Drill Co., The, Cleveland, O.
Diamond "N"—Diamond Expansion Bolt Co., New York, N. Y.
Lightning, Little Giant—Greenfield Tap & Die Corp., Greenfield, Mass.
Lutz—Lutz Co., Inc., Philadelphia, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Porter-Cable Machine Co., Syracuse, N. Y.
Sebco—Star Expansion Bolt Co., New York, N. Y.
Stanworth Tool Mfg. Co., Inc., Indianapolis, Ind.
Union Tool Co., Orange, Mass.

HOLDERS, ELECTRODE, WELDERS

New-Arc—Electric Arc Cutting & Welding Co., Newark, N. J.
Wilson Welder & Metals Co., Inc., Hoboken, N. J.

HOLDERS, EXTENSION BIT.

Mephisto—W. A. Ives Mfg. Co., Wallingford, Conn.
Millers Falls Co., Millers Falls, Mass.

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Columbus Brass Co., Columbus, O.
Enterprise Brass Works, Muskegon, Mich.
Federal-Huber Co., Chicago, Ill.
Fee & Mason Mfg. Co., New York, N. Y.
Goetz Brass Co., Chicago, Ill.
Modern Iron Works, Quincy, Ill.
Monitor—Chandler Pump Co., Cedar Rapids, Ia.
Peck Bros. & Co., The, New Haven, Conn.
Starbuck, R. M., & Sons, Hartford, Conn.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Webb, F. W., Mfg. Co., Boston, Mass. (Trade names—Crawford, Webco.)
Wiseco—J. B. Wise, Inc., Watertown, N. Y.

HOLDERS FOR GRINDING CUTTERS.

Armstrong—Armstrong Bros. Tool Co., Chicago, Ill.

HOLDERS, HOSE.

Chicago—W. D. Allen Mfg. Co., Chicago, Ill.
Schlangen Bros. Co., Chicago, Ill.

HOLDERS, KNURL.

Alert Tool Co., Philadelphia, Pa.
Braunsdorf-Mueller Co., Elizabeth, N. J.

HOLDERS, MINE TIE.

Leetonia Tool Co., The, Leetonia, O.

HOLDERS, NIPPLE.

Armstrong Mfg. Co., Bridgeport, Conn.
Bignall & Keeler Machine Works, Edwardsville, Ill.
Oster Mfg. Co., Cleveland, O.
Walworth Company, Boston, Mass.
Williams Tool Corp., Erie, Pa.
Vanderman Mfg. Co., Willimantic, Conn.

HOLDERS-ON, PNEUMATIC.

Canton Pneumatic Tool Co., The, Canton, O.
Chicago Pneumatic Tool Co., New, York N. Y. "Boyer."
Dayton Pneumatic Tool Co., The, Dayton, O.
Keller, Wm. H., Inc., Grand Haven, Mich. "Keller-Master."

HOLDERS, TOOL, FOR LATHES, PLANERS, SHAPERS AND BORING MACHINES.

Acorn—Greenfield Tap & Die Corp., Greenfield, Mass.
American—American Tool & Machine Co., Boston, Mass.
Armstrong—Armstrong Bros. Tool Co., Chicago, Ill.
Bull Dog—Green Bay Drive Calk Co., Green Bay, Wis.
Carr—The Henry G. Thompson & Son Co., New Haven, Conn.
Celfor—Clark Equipment Co., Buchanan, Mich.
Champion—Western Tool & Mfg. Co., Springfield, O.
Cleveland National Machine Co., Cleveland, Ohio.
Cleveland Twist Drill Co., Cleveland, O.
Eberhart—Union Tool Co., Orange, Mass.
Efficiency—Whitman Metal Goods Co., Worcester, Mass.
4 in 1—Windau Iron Co., Cleveland, O.
Geier—Geier, P. A., Co., Cleveland, O.
Gisholt Machine Co., Madison, Wis.
Goodell-Pratt Co., Greenfield, Mass.
Hill Tools—Union Tool Co., Orange, Mass.
Hold-Em-All—Simmons Economy Tool Corp., Albany, N. Y.
Jost's Sons, Edmund, Newark, N. J.
LeBlond, R. K., Machine Tool Co., Cincinnati, O
Le Count, Wm. G., Norwalk, Conn.
Lovejoy Tool Co., Inc., Springfield, Vt.
M. B. Hill—Ready Tool Co., Bridgeport, Conn.
Millers Falls Mfg. Co., Millers Falls, Mass.
Morgan Mfg. Co., Inc., Keene, N. H.
O. K.—O. K. Tool Co., Inc., Shelton, Conn.
Rawlplug—Rawlplug Co., New York, N. Y.
Red E—The Ready Tool Co., Bridgeport, Conn.

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Stockbridge Machine Co., Worcester, Mass.
Victor—Landis Machine Co., Victor plant, Waynesboro, Pa.
Williams, J. H., & Co., Buffalo, N. Y. (Trade names—Agrippa, Vulcan).
Western Tool & Mfg. Co., Springfield, O.
Whalen—Cincinnati Planer Co., Cincinnati, O.
Windau Iron Co., Cleveland, Ohio.
X-L-N-T—Marshall & Meier, New York, N. Y.

HOLDERS, WORK.

Ney—The J. M. Ney Co., Hartford, Conn.

HOODS, BUFFING AND GRINDING WHEEL.

Black & Decker Mfg. Co., The, Towson, Md. "Marschke."
Buffalo Forge Co., Buffalo ,N. Y.
Economy Adjustable—Kirk & Blum Mfg. Co., Cincinnati, O.
Grammes, L. F. Sons, Allentown, Pa.
Lehigh—Hersh Brothers Co., Allentown, Pa.
Leiman Bros., New York, N. Y.
Mannen, John E., Co., The, Cleveland, O.
Marschke—The Black & Decker Mfg. Co., Towson, Md.
Pittsburgh Grinding Wheel Co., Rochester, Pa.
Swartwout—The Swartwout Co., Cleveland, O.

HOODS, FORGE.

Canton Art Metal Co., Canton, O.
Champion Blower & Forge Co., The, Lancaster, Pa
Terwilliger's Sure Draft—Lourie Mfg. Co., Springfield, Ill.

HOODS, SAND BLAST.

Safety Equipment Service Co., The, Cleveland, O.

HOOKS, BEAM, PIPE HANGING.

Carpenter & Peterson, Boston, Mass.
Crane Co., Chicago, Ill.
Fee & Mason Mfg. Co., New York.
General Fire Extinguisher Co., New York, N Y
Glenn Mfg. Co., St. Charles, Ill
Heartley Machine, Variety Iron & Tool Works, Toledo, O.
Jumbo—The Beaton & Cadwell Mfg. Co., New Britain, Conn.
Modern Iron Works, Quincy, Ill.
Modern Mfg. Co., The, Cleveland, O.
National Tube Co., Pittsburg, Pa.
Parker Wire Goods Co., Worcester, Mass.
Pittsburg Block & Mfg. Co., Pittsburg, Pa.
Walworth Company, Boston, Mass.

HOOKS, BELT.

(See "Fasteners, Belt.")

HOOKS, BOX AND BALE HANDLING.

B. M. Co.—Braunsdorf-Mueller Co., Elizabeth, N. J.
Drew, C., & Co., Kingston, Mass.
Duffy Manufacturing Co., Chicago, Ill.
Johnson, Wm., Firm of, Newark, N. J.
National Tool Co., New York, N. Y.
Spang & Co., Butler, Pa. (marine).
Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Wilcox, Crittenden & Co., Inc., Middletown, Conn.

HOOKS, BRASS, SHOWER CURTAIN.

Elgin Brass Co., New York, N. Y.
Waterbury Mfg. Co., Waterbury, Conn.

HOOKS, CANT.

Leetonia Tool Co., The, Leetonia, O.
Channon, James H., Mfg. Co., Chicago, Ill.

HOOKS, CAR, SAFETY.

Macwhyte Company, Kenosha, Wis.
Williams, J. H., & Co., Buffalo, N. Y.

HOOKS, CHAIN.

Taylor, S. G., Chain Co., Chicago, Ill.
Wilcox, Crittenden & Co., Middletown, Conn.

HOOKS, CONDUCTOR OR RAIN LEADER.

Hauer, J. B., Inc., Brooklyn, N. Y.
Heartley Machine, Variety Iron & Tool Works, Toledo, O.

HOOKS, COTTON AND CARGO.

Buffum Tool Co., Louisiana, Mo.
Johnson, Wm., Firm of, Newark, N. J.
Leetonia Tool Co., The, Leetonia, O.
Marine Hardware-Equipment Co., South Portland,, Me.
Wilcox, Crittenden & Co., Inc., Middletown, Conn.

HOOKS, "8" OR "S".

Bernz, Otto, Co., Newark, N. J.
Bridgeport Chain Co., Bridgeport, Conn.
Broderick & Bascom Rope Co., St. Louis, Mo.
Chain Products Co., The, Cleveland, O.
Grammes, L. F., & Sons, Allentown, Pa.
Laughlin, Thomas, Co., The, Portland, Me.
Russell, John M., Mfg. Co., Naugatuck, Conn.
Smith & Egge Mfg. Co., Bridgeport, Conn.
Washburn Co., The, Wire Goods Co. Div., Worcester, Mass.

HOOKS, FIRE PAIL.

E. Jencks Mfg. Co., Worcester, Mass.
Stanley Works, The, New Britain, Conn.

HOOKS, FLASHING.

Hauer, J. B., Inc., Brooklyn, N. Y.

HOOKS, GRAB & SLIP.

Columbus McKinnon Chain Co., Tonawanda, N. Y.
Taylor, S. G., Chain Co., Chicago, Ill.

HOOKS, HOIST, DROP FORGED.

Billings & Spencer Co., Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Columbus McKinnon Chain Co., Tonawanda, N. Y.
Diriga—The Thos. Laughlin Co., Portland, Me.
Fischer & Hayes Rope & Steel Co., Chicago, Ill.
National Tool Co., New York, N. Y.
Pittsburgh Block & Mfg. Co., Pittsburg, Pa.
Scully Steel & Iron Co., Chicago, Ill.
Taylor, S. G., Chain Co., Chicago, Ill.
United States Chain & Forging Co., Pittsburgh, Pa.
Vulcan—J. H. Williams & Co., Buffalo, N. Y.
Warren Axe & Tool Co., Warren, Pa.
Weimer Chain & Iron Co., Lebanon, Pa.
Wilcox, Crittenden & Co., Inc., Middletown, Conn.

HOOKS, HOPPER AND CLOSET CLEANING.

Taiz, Jacob, & Son, Philadelphia, Pa.

HOOKS, PACKING EXTRACTING.

Chicago Rhopac Products Co., Chicago, Ill.
Lightning—The Strong Machinery & Supply Co., New York, N Y.
Mound—Mound Tool Co., St. Louis, Mo.
Pilley's—Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Universal—Racine Iron & Wire Works, Racine, Wis.
Verona Tool Works, Pittsburgh, Pa.

HOOKS, PIPE, DRIVE.

Berger Bros. Co., Philadelphia, Pa.
Bradford, Wm A., Co., Quincy, Mass.
Carpenter & Peterson, Boston, Mass.
Crane Co., Chicago, Ill.
Eclipse—Cann & Saul Steel Co., Philadelphia, Pa.
Eclipse—Thos. Devlin Mfg. Co., Philadelphia, Pa.
Fee & Mason Mfg. Co., New York, N. Y.
Hallett Iron Works, The, Harvey, Ill.
Hauer, J. B., Inc., Brooklyn, N. Y. (hand-forged).
Lanz, M., Bolt Co., Pittsburgh, Pa.
Modern Iron Works, Quincy, Ill.
Pittsburg Valve, Foundry & Construction Co., Pittsburg, Pa.
Pittsburgh Valve & Fittings Co., Barberton, O.
Reznor—Reznor Mfg. Co., Mercer, Pa.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Walworth Company, Boston, Mass.

DEPENDABLE

EYE HOIST HOOKS

Drop Forged Steel

Fig. 2381
Regular Eye

Fig. 2382
Reversed Eye

Strong and Dependable

Made of Open Hearth Steel, tough and elastic, especially suited for the purpose and use of these Hooks.

In Black Iron Finish only. Sizes No. 21 to No. 36.

Wilcox, Crittenden & Co., Inc.
333 South Main Street
MIDDLETOWN, CONN.
Established 1847

DEPENDABLE

ROUND and FLAT SHANK HOOKS

FOR BLOCKS

Drop Forged Steel

Fig. 238

Fig. 2380

STRONG AND DEPENDABLE

Made of Open Hearth Steel, tough and elastic, especially suited for the purpose and use of these hooks.

In Black Iron Finish only. Flat Shank Hooks furnished in sizes No. 2 to No. 16; Round Shank Hooks in sizes 3/8" to 2".

Prompt Shipments from Finished Stock. Try Us!

Wilcox, Crittenden & Co., Inc.
333 South Main Street
MIDDLETOWN, CONN.
Established 1847

DEPENDABLE
SINGLE HOOKS
With Manila or Wire Rope Thimbles

Fig. 227

Fig. 229

Hot Galvanized or Blacked. Size of hooks ¼ to 2½ in., with Manila Rope Thimbles from 5/16 to 2⅛ in. score, with Wire Rope Thimbles from 3/16 to 2¼ in. score.

Prompt Deliveries from Finished Stock.
Try Us!

Wilcox, Crittenden & Co., Inc.
333 South Main Street Middletown, Conn.
Established 1847

WILCOX DEPENDABLE
SMALL EYE SINGLE HOOKS
Drop Forged
Hot Galvanized or Black

Fig. 231

20 Sizes of Hooks, from ¼" to 2½".
Lengths from 2⅛" to 14¾".
Diameter of Eyes, from 7/16" to 2½".

Prompt Shipments from Finished Stock.
Try Us!

Wilcox, Crittenden & Co., Inc.
333 South Main Street
MIDDLETOWN, CONN.
Established 1847

HOOKS, PLUMBERS' SHAVE OR PLUMBERS' SCRAPERS.

Always Reliable—Otto Bernz, Newark, N. J.
Frank Bros. Mfg. Co., New York, N. Y.
Hauer, J. B., Brooklyn, N. Y.
Hoegger, Joseph A., Inc., Jersey City, N. J.
Irvington Mfg. Co., Irvington, N. J.
Johnson, Wm., Firm of, Newark, N. J.
Marine Hardware Equipment Co., South Portland, Me.
National Tool Co., New York, N. Y.
Pexto—Peck, Stow & Wilcox Co., Southington, Conn.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Vulcan Tool Mfg. Co., Quincy, Mass.
W. W.—Woodward-Wanger Co., Philadelphia, Pa.

HOOKS, POT.

Bernz, Otto, Co., Newark, N. J.
Johnson, Wm., Firm of, Newark, N. J.
National Tool Co., New York, N. Y.

HOOKS, WRECKING.

National Malleable & Steel Castings Co., Cleveland, Ohio.

HOOPS, STEEL.

Pittsburgh Steel Co., Pittsburgh, Pa.
Youngstown Sheet & Tube Co., Youngstown, O.

HOPPERS, COAL & ASH.

Flynn & Emrich Co., Baltimore, Md.
Littleford Bros., Cincinnati, Ohio.
Lakewood Engineering Co., Cleveland, Ohio.
Link-Belt Company, Chicago and Philadelphia.
New York Central Iron Works Co., Inc., Hagerstown, Md.
Seaverns, James B., Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.

HOPPERS, CLOSET, PORCELAIN AND VITREOUS CHINA.

Capoco—Camden Pottery Co., Camden, N. J.
Cochran, Drugan & Co., Trenton, N. J.
Maddock's Sons Co., Thomas, Trenton, N. J.
Mott, J. L., Iron Works, The, Trenton, N. J.
Penn Pottery Co., Philadelphia, Pa.
Resolute Pottery Co., Trenton, N. J.
Stratton Fire Clay Co., Empire, O.
Trenton Potteries Co., Trenton, N. J.
Union Sanitary Works, Noblesville, Ind.
Wheeling Sanitary Mfg. Co., Wheeling, W. Va.

HOPPERS, CLOSET, PORCELAIN ENAMELED.

I. X. L. Pump & Mfg. Co., Inc., Philadelphia, Pa.
Jones Hollow Ware Co., Baltimore, Md.
Standard Sanitary Mfg. Co., Pittsburgh, Pa. (Trade names—Bayley, Merrie.)

HOPPERS, SLOP.

(See also "Sinks, Slop.")
Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American Foundry & Mfg. Co., St. Louis, Mo. (Trade names—American Combination, Bayley, Harris.)
American Vitrified Products Co., Akron, O.
Bailey—The Casey-Hedges Co., Chattanooga, Tenn.
Bignall Co., The, Medina, N. Y.
Concord Foundry & Machine Co., Concord, N. H.
Glenn Mfg. Co., St. Charles, Ill.
Indiana Foundry Co., Indiana, Pa.
Jones Hollow Ware Co., Baltimore, Md.
Kenney Foundry & Mfg. Co., Mansfield, Pa.
Kupferle, John C., Foundry Co., St. Louis, Mo.
Pluvic—The Hydraulic Specialty Co., Philadelphia, Pa.
Sanitary Company of America, Linfield, Pa.
Swett Iron Works, A. L., Medina, N. Y.
Washington Iron Works, Los Angeles, Cal.
Zurn, J. A., Mfg. Co., Erie, Pa.

HORNS, SIGNAL AND WARNING.

Klaxon—Klaxon Company, Newark, N. J.

HORSE POWERS.

American Hoist & Derrick Co., St. Paul, Minn.
Deming Co., The, Salem, O. (pumping).
Dobbie Foundry & Machine Co., Niagara Falls, N. Y
Goulds Mfg. Co., The, Seneca Falls, N. Y. (pumping)

HORSES, STEEL, FOLDING.

Frasse—Peter A. Frasse & Co., Inc., New York, N. Y.

HOSE BODIES, FOR MOTOR APPARATUS.

Pirsch, Peter, & Sons Co., Kenosha, Wis.

HOSE COUPLINGS.

(See "Couplings, Hose.")

HOSE, ACID.

Advance Hose Mfg. Co., Philadelphia, Pa.
Best Test—Union Rubber & Asbestos Co., Trenton, N. J.
Canfield Rubber Co., The, Bridgeport, Conn.
Carigrain—B. F. Goodrich Rubber Co., Akron, O.
Cincinnati Rubber Mfg. Co., The, Cincinnati, O. (Trade names—Losant, Norwood, Scioto.)
Conomie—Union Rubber & Asbestos Co., Trenton, N. J.
Continental Rubber Co., Erie Pa.
Crown—Quaker City Rubber Co., Philadelphia, Pa.
Diamond Rubber Co., Inc., The, Akron, O.
Electric Hose & Rubber Co., Wilmington, Del. (Trade names—Electric, Golconda, Zenobia.)
Everoid—Thermoid Rubber Co., Trenton, N. J.
Globe Rubber & Tire Co., Inc., Trenton, N. J.
Goodall Rubber Co., Inc., Philadelphia, Pa.
Goodrich—B. F. Goodrich Rubber Co., Akron, O.
Goodyear—The Goodyear Tire & Rubber Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., New York, N. Y. (Trade names—Maltese Cross, Ridgewood.)
Hewitt Rubber Co., Buffalo, N. Y. (Trade names—Underwriters, Elmwood, Linwood, Magnus).
Hudson Mechanical Rubber Co., New York, N. Y.
Invincible—J. W. Buckley Rubber Co., New York, N. Y.
King—Empire Tire & Rubber Corp., Trenton, N. J.
Marco—The Mechanical Rubber Co., Cleveland, Ohio.
Mulconroy Co., Inc., Philadelphia, Pa. "Mulconroy," "Flexible Metallic," "All Metal."
New York Belting & Packing Co., New York, N. Y.
Quaker City—Quaker City Rubber Co., Philadelphia Pa.
Ranger—Union Rubber & Asbestos Co., Trenton, N. J.
Republic Rubber Co., The, Youngstown, O.
Super Elevator—Goodrich Rubber Co., B. F., Akron O.
Thermoid Rubber Co., Trenton, N. J. "Beaconoid."
Titan, Sphinx—Diamond Rubber Co., Inc., Akron, O.
United States Rubber Co., New York, N. Y.
Voorhees Rubber Mfg. Co., Jersey City, N. J.

HOSE, AIR BRAKE.

(See "Hose, Rubber, Air," and "Tubing, Flexible, Metallic.")

HOSE, AUTOMOBILE RADIATOR.

A. B. C.—American Brake Lining Co., Sellersville, Pa.
Atlantic Mfg. Co., Wilmington, Del.
Clipper—Diamond Rubber Co., Inc., Akron, O.
Eclat Rubber Co., The, Cuyahoga Falls, O.
Goodrich—The B. F. Goodrich Rubber Co., Akron, O.
Goodyear—The Goodyear Tire & Rubber Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., New York, N. Y
Mechanical Rubber Co., The, Cleveland, Ohio. (Trade names—Corker, Marine.)
Moto—Quaker City Rubber Co., Philadelphia, Pa.
Norka—Cincinnati Rubber Mfg. Co., Cincinnati, O.
Republic Rubber Co., The, Youngstown, O.
Thermoid, Testoid—Thermoid Rubber Co., 248 Chestnut St., Philadelphia, Pa.
United States Rubber Co., New York, N. Y.
White King—Goodrich Rubber Co., B. F., Akron, O.

HOSE, CHEMICAL ENGINE.

(See "Hose, Rubber.")

HOSE, COKE.

Buckeye—The Mechanical Rubber Co., New York, N. Y.
Cincinnati Rubber Mfg. Co., The, Cincinnati, O.
Clipper—Diamond Rubber Co., Inc., Akron, O.
Goodyear—The Goodyear Tire & Rubber Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., New York, N. Y. "G. P. Braided."
Hewitt Rubber Co., Buffalo, N. Y. (Trade names—Linwood, Maywood.)
Mulconroy Co., Inc., Philadelphia, Pa. "Mulconroy," "Flexible Metallic."
New York Belting & Packing Co., New York.
Quaker City Rubber Co., Philadelphia, Pa. (Trade names—Bytumen, Korker.)
Republic Rubber Co., The, Youngstown, O.
United States Rubber Co., New York, N. Y.

HOSE, COTTON, AND COTTON RUBBER LINED.

Acme Rubber Mfg. Co., The, Trenton, N. J.
Advance Hose Mfg. Co., Philadelphia, Pa.
Apex—Hamilton Rubber Mfg. Co., Trenton, N. J.
Atlantic Mfg. Co., Wilmington, Del.
Cincinnati Rubber Mfg. Co., Cincinnati, O. (Trade names—Arno, Delva, Challenge, Losant, Mezen, Normal, Norka, Plymouth, Puritan, Reno, Royal Motor, Sandow, Scioto.)

DEPENDABLE
WIRE SLING HOOKS
Drop Forged, Self Colored

Fig. 2401

Sizes No. 85 and 90. Length 5½ in., Width 3 in., Hole ¾ in., Opening ⅞ in., Weight 2¼ lbs.

The No. 90 sling hook is forged from best grade of Chrome Nickel tool steel, heat treated.

Prompt Shipments from Finished Stock. Try Us!

Wilcox, Crittenden & Co., Inc.
333 South Main Street Middletown, Conn.
Established 1847

SWIVEL HOOKS
Drop Forged, Self Colored

Fig. 2383

Fig. 235

Fig. 235 furnished in sizes from ⅜ to 2 inches. Lengths from 2 13/16 to 11½ inches.

Fig. 2383 furnished in sizes No. 2 to No. 16. Lengths 5½ to 26¼ inches.

Prompt Shipments from Finished Stock. Try Us!

Wilcox, Crittenden & Co., Inc.
333 South Main Street
MIDDLETOWN, CONN.
Established 1847

Baker—The Gutta Percha & Rubber Mfg. Co., New York, N. Y.
Beaconcoid—Thermoid Rubber Co., Trenton, N. J.
Belmont—Consolidated Rubber Co., Trenton, N. J
Bi-Lateral—Bi-Lateral Fire Hose Co., Chicago, Ill.
Boston Woven Hose & Rubber Co., Cambridge, Mass. (Trade names—Black Line, Blue Line, Bull Dog, Columbia, Invincible, Merit, O. K. Underwriters, Paramount, Perfection-Jacketed.
Buckley Rubber Co., J. W., New York, N. Y. (Trade names—Croton, Invincible, Warren.)
Carbon—New York Belting & Packing Co., New York.
Chief Croker—Hudson Mechanical Rubber Co., New York, N. Y.
Chieftain—The B. F. Goodrich Rubber Co., Akron, O.
Clermont, Hi-Test, Hudson—Hudson Mechanical Rubber Co., New York.
Commander, Marathon—Goodrich Rubber Co., B. F., Akron, O.
Continental Rubber Co., Erie, Pa.
Czar, Double Diamond, Dragon—New York Belting & Packing Co., New York, N. Y.
Diamond Rubber Co., Inc., The, Akron, O. (Trade names—Arctic, Clipper, Crescent, Defiance, Elk, Lion, Moose, Portage, Python, Sphinx, Titan, Zulu.)
Double Service Packing Co., Philadelphia, Pa.
Economy, Panama—The Manhattan Rubber Mfg. Co., Passaic, N. J.
Emberoid D. J.—Thermoid Rubber Co., Trenton, N. J
Empire Tire & Rubber Co., Trenton, N. J. (Trade names—Empire Best, Crescent, Hampton Solid, King, Merrimac, Rival, Yale.)
Everoid—Thermoid Rubber Co., Trenton, N. J.
Fabric Fire Hose Co., New York, N. Y. (Trade names—Elkshead Underwriters, Safety, Warwick.)
Foamite-Childs Corp., Utica, N. Y.
Girard—Wise & Bailey, Philadelphia, Pa.
Globe Rubber & Tire Co., Inc., Trenton, N. J.
Goodrich—The B. F. Goodrich Rubber Co., Akron, O.
Goodyear Tire & Rubber Co., Akron, O.
Grey King, White King—B. F. Goodrich Co., Akron, O
Gutta Percha & Rubber Mfg. Co., New York. (Trade names, Nassau, G. P. Underwriter's, Ridgewood, Star-Ajax, Ajax.)
Hall & Cary Weaving & Belting Co., Inc., Lockport, N. Y. (Trade names—Blue Chain, D. J. Rex, Extra, Lock City, Niagara, Niagara Double Jacket, Red Chain.)
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Rubber Co., Buffalo, N. Y. (Trade names—Elmwood, Glenwood, Linwood, Hewitt, Magnus, Heavy Municipal, Underwriters.)
Hobson—Home Rubber Co., Trenton, N. J
Johns-Manville Corporation, New York, N. Y. "J. M."
Jupiter—The B. F. Goodrich Co., Akron, O.
Lehigh—The B. F. Goodrich Rubber Co., Akron, O.
Lenox—New York Belting & Packing Co., New York.
Mechanical Rubber Co., The, Cleveland, Ohio. (Trade names — Buckeye, Bullseye, Burro, Cleveland, High Grade, Meruco, Sterling, 2XL.)
Meteor—The B. F. Goodrich Rubber Co., Akron, O.
North Star—The B. F. Goodrich Co., Akron, O.
O. & B.—Gutta Percha & Rubber Mfg. Co., New York, N. Y.
Oregon—Home Rubber Co., Trenton, N. J.
Pennsylvania—The Pennsylvania Rubber Co., Jeannette, Pa.
Phoenix—Wise & Bailey, Philadelphia, Pa.
Pioneer Rubber Mills, San Francisco, Cal. (Trade names—Defender, Guardian, Victor.)
Planet—The B. F. Goodrich Rubber Co., Akron, O.
Princeton—Gutta Percha & Rubber Mfg. Co., New York, N. Y.
Quaker City Rubber Co., Philadelphia. (Trade names—Quaker City, Crown, Edgewater, Hercules, Pometus, Firefite, Yankee Chief.)
Republic Rubber Co., Youngstown, O. (Trade names—Aero, Capitol, Chariot, Double Cross, Hydro, Invader, Relief, Republic, Tower, White Shield.)
Rescue—Gutta Percha & Rubber Mfg. Co., New York, N. Y.
Rex—The Empire Mfg. Co., Lockport, N. Y.
Rossendale-Reddaway Belting & Hose Co., The, Newark, N. J
Rowe, A. C. & Son, Inc., New York, N. Y.
Salisbury, W. H., & Co., Inc., Chicago, Ill. (Trade names—Apex, Bassick, Falstaff, Intertex, Juanita, Nemo, Regent, Salisbury, Underwriters, X X X.)
Saxonoid—Thermoid Rubber Co., Trenton, N. J.
Solar—The B. F. Goodrich Rubber Co. Akron, O.
Stalwart, Standard—Consolidated Rubber Co., Trenton, N. J.
Sunol—Home Rubber Co., Trenton, N. J.
Symbaloid—Thermoid Rubber Co., Trenton, N. J.
Titanic—Goodrich Rubber Co., B. F., Akron, O.
Toweroid—Thermoid Rubber Co., Trenton, N. J
Union Rubber & Asbestos Co., Trenton, N. J. (Trade names—Best Test, Conomie, Ranger.)
United States Rubber Co., New York.
Volunteer—The Cornelius Callahan Co., Boston, Mass
Wellington—Wise & Bailey, Philadelphia, Pa.
White Cross, Tiger—Home Rubber Co., Trenton, N. J.
Winner—Consolidated Rubber Co., Trenton, N. J.

HOSE, DIVERS'.

(See "Hose, Rubber.")

HOSE, ENGINE AND TENDER.

(See "Hose, Rubber.")

HOSE, FIRE ENGINE

(See "Hose, Cotton" and "Hose, Rubber.")

HOSE, GAS.

Advance Hose Mfg. Co., Philadelphia, Pa.
Akron—The B. F. Goodrich Rubber Co., Akron, O.
Diamond Rubber Co. The, Akron, O.
Electric—Electric Hose & Rubber Co., Wilmington Del.
Gutta Percha & Rubber Mfg. Co., New York, N. Y.
Hudson Mechanical Rubber Co., New York, N. Y
Marco—The Mechanical Rubber Co., New York, N. Y
Mulconroy Co., Inc., Philadelphia, Pa. "Mulconroy," "Flexible Metallic," "New Process."
United States Rubber Co., New York, N. Y.

HOSE, GASOLINE

Advance Hose Mfg. Co., Philadelphia, Pa.
Ametalhose—The American Metal Hose Co., Waterbury, Conn.
Diamond Rubber Co., Inc., The, Akron, O. (Trade names—Diamond, Portage, Sphinx, Titan.)
Duraflex—Herbert J. Meyer Co., Buffalo, N. Y.
B. F. Goodrich Rubber Co., Akron, O. "Commander," "Goodrich," "Rob Roy."
G. P.—Gutta Percha & Rubber Mfg. Co., New York.
Goodyear—The Goodyear Tire & Rubber Co., Akron, O.
Hewitt Rubber Co., Buffalo, N. Y. (Trade names—Hewitt Rough Bore, Magnus Rough Bore.)
High Grade—The Mechanical Rubber Co., Cleveland, Ohio.
Mulconroy Co., Inc., Philadelphia, Pa. "Mulconroy," "New Process," "Steel Lined."
Plymouth—Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
Quaker City Rubber Co., Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Union Rubber & Asbestos Co., Trenton, N. J. (Trade names—Best Test, Conomie, Ranger.)
United States Rubber Co., New York, N. Y.

HOSE, HYDRAULIC.

(See "Tubing, Flexible, Metallic")

HOSE, LINEN.

Advance Hose Mfg. Co., Philadelphia, Pa.
Afmic—New York Belting & Packing Co., New York
Alenco Underwriter, 1 & 2 Defender, Liberty, Union—Wm. & Chas. Beck Co., Lawrence, Mass.
Allen, W. D., Mfg. Co., Chicago, Ill. (Trade names—Mascot, Nella.)
Atlantic Mfg. Co., Wilmington, Del.
Beck, Wm. & Chas., Co., Lawrence, Mass.
Elkshead Underwriters—Fabric Fire Hose Co., New York, N. Y.
Blue Line—New York Belting & Packing Co., Ltd., New York, N. Y.
Boston Woven Hose & Rubber Co., Cambridge, Mass. (Trade names—Black Line Underwriters, Service.)
Delta—New York Belting & Packing Co., New York.
Hall & Cary Weaving & Belting Co., Inc., Lockport, N. Y. (Trade names—Empire, Green Line, Standard.)
I. X. L.—Chas. Nuhring & Bro., Cincinnati, O.
Fenwick-Reddaway Mfg. Co., Newark, N. J. (Trade names—Insurance, Reddcom.)
Jiffy—Jiffy Fire Hose Rack Co., New York, N Y
Mechanical Rubber Co., The, Cleveland, Ohio. (Trade names—Marco, 2XL.)
Niedner's, Chas., Sons Co., Malden, Mass. (Trade names—Congress, Rendein, Yankee.)
Perfecto—H. J. M. Howard Mfg. Co., Washington, D. C.
Plantation—American Belting Companies, Baltimore, Md.
Red & Blue Line—The Rossendale-Reddaway Belting & Hose Co., Newark, N. J.
Salisbury, W. H., & Co., Inc., Chicago, Ill. (Trade names—Salisbury, X. X. X., Underwriters.)
Underwriter—Double Service Packing Co., Philadelphia, Pa.
Underwriter—John Simmons Co., New York, N. Y.
Union Rubber & Asbestos Co., Trenton, N. J.

HOSE, METALLIC.

(See "Tubing, or Hose, Flexible, Metallic")

HOSE, MILL.

(See "Hose, Cotton, Rubber Lined.")

HOSE, OIL.

Billow—National Supply Co., Chicago, Ill.
Breeze Metal Hose & Mfg. Co., Newark, N. J. "Fle-X-Met."
Dirubco, Titan—The Diamond Rubber Co., Inc., Akron, O.
Federal—Federal Metal Hose Corp., Buffalo, N. Y.
Goodyear—The Goodyear Tire & Rubber Co., Akron, O.
Losant—Cincinnati Rubber Mfg. Co., The, Cincinnati, O.
Marco—The Mechanical Rubber Co., Cleveland, Ohio.
Mulconroy Co., Inc., Philadelphia, Pa. "Mulconroy," "New Process," "All Metal," "Steel Lined."
Republic—The Republic Rubber Co., Youngstown, O.
Union Rubber & Asbestos Co., Trenton, N. J. (Trade names—Best Test, Conomie, Ranger.)
United States Rubber Co., New York, N. Y.

HOSE, OXY-ACETYLENE

Advance Hose Mfg. Co., Philadelphia, Pa.
Breeze Metal Hose & Mfg. Co., Newark, N. J. "Fle-X-Met."
Goodyear—The Goodyear Tire & Rubber Co., Akron, O.
Losant—The Cincinnati Rubber Mfg. Co., Cincinnati, O.
Mechanical Rubber Co., The, Cleveland, Ohio. (Trade names—High Grade, Sterling.)
Mulconroy Co., Inc., Philadelphia, Pa. "Mulconroy," "Flexible Metallic."

HOSE, RUBBER.

Acme—The Acme Rubber Mfg. Co., Trenton, N. J.
Advance Hose Mfg. Co., Philadelphia, Pa.
Akron—The B. F. Goodrich Rubber Co., Akron, O.
Ametalhose—The American Metal Hose Co., Waterbury, Conn. (metal).
Atlantic Mfg. Co., Wilmington, Del.
Bock—The B. F. Goodrich Co., Akron, O.
Buckskin—Goodall Rubber Co., Inc., Philadelphia, Pa.
Boston Woven Hose & Rubber Co., Cambridge, Mass. (Trade names—Bay State, Blue Bell, Boston Terrier, Bull Dog, Commercial, Competition, Conservatory, Cowen Steam, Dandy, Dauntless, Gleaner, Good Luck, Granger Agricultural, Granger, Harvester, Leader, Milo, Olympia, Perfection (red), Reel, Royal Agricultural, Service, Tiger, White Star, Wizard.)
Buckley, J. W., Rubber Co., New York. (Trade names—Aqua, B, Bucko, Dumol, Hydraulic, High Pressure, Invincible, Magnet, Maron, Monol, Octo, Ox, Ramapo, Rebus, Rud, Steamship, Trimol, Wabron.)
Buffalo—The Acme Rubber Mfg. Co., Trenton, N. J
Capitol—The Acme Rubber Mfg. Co., Trenton, N. J.
Cascade—The B. F. Goodrich Rubber Co., Akron, O.
Celtic—The Henry Johnson Co., Jersey City, N. J.
Challenge—The Henry Johnson Co., Jersey City, N. J.
Cincinnati Rubber Mfg. Co., Cincinnati, O. (Trade names—Arno, Bolivian, Challenge, Congo, Delva, Fidelity, Losant, Motor, Norka, Norwood, Plymouth, Royal Red, Sandow, Scioto.)
Clermont—Hudson Mechanical Rubber Co., New York.
Columbia—Empire Rubber & Tire Co., Trenton, N. J.
Commander—B. F. Goodrich Rubber Co., Akron, O.
Compressor—Goodall Rubber Co., Inc., Philadelphia, Pa.
Delhi—The Manhattan Rubber Mfg. Co., Passaic, N. J.
Deluge—The B. F. Goodrich Rubber Co., Akron, O.
The Diamond Rubber Co., Inc., Akron, O. (Trade names—Antarctic, Antelope, Arctic, Clipper, Crescent, Defiance, Diamond 400, Elk, Gulf, Lion, Moose, Pacific, Polar, Python, Sphinx, Star, Zuzu, Titan.)
Double Service—Double Service Packing Co., Philadelphia, Pa.
Durable—The Acme Rubber Mfg. Co., Trenton, N. J
Eclat Rubber Co., The, Cuyahoga Falls, O.
Economy—Manhattan Rubber Mfg. Co., The, Passaic, N. J.
Electric Hose & Rubber Co., Wilmington, Del. (Trade names—Electric, Velvet, Colossus, Christiana, Supero, Marvelo, Barcus, Standard, Delaware, Nocer, Buoy, Caliente, Cyrus, Constant, Eddystone, Laconic, Mineralite, Oleic, Onoko, Oxyacetylene, Pliant, Pocomoke, Quintuple, Supple, Snowdrop, Tamaqua, Tarpon, Trouble Savers, Zenobia, Golconda, Nanticoke, Rialto, Valhalla, Aladdin, Tres, Acetic, Seaford, Terrapin, Coalinga, Blacksnake, Blackfin, Caribou, Corrugated, Crusoe, Defiance, Electro, Elecho, Electric, Kaffir, Kineo, Magnet, Manila, Milton, Pitts, Redfin, Redsnake, Redcord, Redbird, Redtop, Redrib, Rubyrib, Ruddy, Selkirk, Tanker, Brandywine, Collosene.)
Empire Tire & Rubber Corp., Trenton, N. J. (Trade names—Antimo, Empire Red, Empire, Empiro, Faust, Hero, Rival, Wontkink.)
Equality—The Acme Rubber Mfg. Co., Trenton, N. J.
Falcon—The B. F. Goodrich Rubber Co., Akron, O.
Florist—The B. F. Goodrich Rubber Co., Akron, O.
Fulton—The Manhattan Rubber Mfg. Co., Passaic, N. J.
Gates Rubber Co., Denver, Colo.
Girard—Wise & Bailey, Philadelphia, Pa.
Globe Rubber & Tire Co., Inc., Trenton, N. J.
Goodrich Anchor—The B. F. Goodrich Rubber Co., Akron, O.
Gutta Percha Rubber Mfg. Co., New York. Trade-names—Franklin, Harbor, Montawk, Triangle, Crescent, Flushing, Monarch, Nassau, Rescue, Ridgwood, Tempest, Tornado, Wallabout, Wantago, Blue Jacket Cover, Maltese Cross, Prospect, Pyramid.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hercules—Wise & Bailey, Philadelphia, Pa.
Hewitt Rubber Co., Buffalo, N. Y. (Trade names—Magnus, Elmwood, Linwood, Maywood, Hewitt Underwriters'.)
Hudson Mechanical Rubber Co., New York, N. Y. (Trade names—Clermont, Hi-Test, Hudson.)
Home Rubber Co., Trenton, N. J. Trade names—Extra, Faultless, Jumbo, N. B. O., Value, Water Snake, White Cross, World.
Ideal—The Akron Belting Co., Akron, O.
I. X. L.—Chas. Nuhring & Bros., Cincinnati, O.
Johns-Manville Corporation, New York, N. Y. "J.-M. Hose."
Judson—Goodall Rubber Co., Inc., Philadelphia, Pa.
Knowlton, Geo. W., Rubber Co., Boston, Mass.
Kortlandt—The Manhattan Rubber Mfg. Co., Passaic, N. J.
La Favorite Rubber Mfg. Co., Paterson, N. J.
Legrain—Goodrich Rubber Co., B. F., Akron, O.
Live Oak—Pioneer Rubber Mills, San Francisco, Cal.
Lone Rock—The Wm. L. McLellan Co., Bridgeport, Conn.
Long Life—Whitehead Bros Rubber Co., Trenton, N. J.
Mainstay—Goodrich Rubber Co., B. F., Akron, O.
Manhattan Rubber Mfg. Co., The, Passaic, N. J. "Dreadnaught."
Mechanical Rubber Co., The, Cleveland, Ohio. (Trade names—High Grade, Marco, Neverleak, Palladium.)
Mercer Rubber Co., Hamilton Square, N. J.
Mor-Econ—Goodrich Rubber Co., B. F., Akron, O.
Mulconroy Co., Inc., Philadelphia, Pa. "Mulconroy," "Dynamite," "Garnet," "Keystone," "Model," "Victor," "Flexible Metallic," "New Process."
New Era—Fabric Fire Hose Co., New York, N. Y.
New York Belting & Packing Co., Inc., New York. (Trade names—Aetna, Cable, Carbon, Carboy, Comet, Delta, Double Diamond, Dragon, 1846 Para, Indestructible, Jubilee, Lenox, Magic, Multiplex, Palisade, R. R. S., Spider, Sterling, Test, Tuxedo, Vulcan, X. L.)
New York Rubber Corporation, Beacon, N. Y.
Nuhring's—Chas. Nuhring & Bro., Cincinnati, O.
Old Reliable—Wise & Bailey, Philadelphia, Pa.
Penflex—Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.
Perfected—The Peerless Rubber Mfg. Co., New York.
Quaker City Rubber Co., Philadelphia. (Trade names—Atlantic, Corporal, Crown, Ebonite, Hercules, Kaptan, Kernel, Majer, Nymph, Quaker City, Ringmeter, Standard, Surprise, Wonderful, Yankee, Norse.)
Regal—The Henry Johnson Co., Jersey City, N. J.
Republic Rubber Co., The, Youngstown, O. (Trade names—Aero, Chariot, Double Cross, Excelo, Heavy Duty, Hector, Hydro, Invader, Republic, Sanco, Target, Tonka, Tower, White Shield, Gusher, 50-50.)
Revelation—Hamilton Rubber Mfg. Co., Trenton, N. J.
Salisbury, W. H., & Co., Inc., Chicago, Ill. (Trade names—Flex Braid, Hevea, Viking, Warsal.)
Seal Rock—Pioneer Rubber Mills, San Francisco, Cal.
Select—The Henry Johnson Co., Jersey City, N. J.
S. S. S.—Goodall Rubber Company, Inc., Philadelphia, Pa.
Summit—The B. F. Goodrich Rubber Co., Akron, O.
Sunset—Pioneer Rubber Mills, San Francisco, Cal.
Superheat—The B. F. Goodrich Rubber Co., Akron, O
Tannhauser—Wise & Bailey, Philadelphia, Pa.
Thermoid Rubber Co., The, 248 Chestnut St., Philadelphia, Pa. "Jasonoid," "Rexoid," "Saxonoid," "Testoid," "Thermoid."
Tidal—The B. F. Goodrich Rubber Co., Akron, O.
Torrent—The B. F. Goodrich Rubber Co., Akron, O.
Triton—The B. F. Goodrich Rubber Co., Akron, O
Union Rubber & Asbestos Co., Trenton, N. J. (Trade names—Best Test, Conomie, Drake, Ranger.)
United States Rubber Co., New York, N. Y.
Velvet—The Pennsylvania Rubber Co., Jeannette, Pa
Voorhees Rubber Co., Jersey City, N. J. "Bostwick," "Sensation," "Sentinel," "Supero," "Tarpon," "Union."
Whirlpool—The B. F. Goodrich Rubber Co., Akron, O
White Anchor—The B. F. Goodrich Rubber Co., Akron, Ohio.
Whitehead Bros. Rubber Co., The, Trenton, N. J
Woven Steel Hose & Rubber Co., Trenton, N. J. (Trade names—Herald, Protector, Wovco.)

HOSE, RUBBER, AIR.

Advance Hose Mfg. Co., Philadelphia, Pa.
American Metal Hose Co., Waterbury, Conn. (metal). "Ametalhose."
Atlantic Mfg. Co., Wilmington, Del.
Best Test—Union Rubber & Asbestos Co., Trenton, N. J.
Black Snake—Electric Hose & Rubber Co., Wilmington, Del.
Boston Woven Hose & Rubber Co., Cambridge, Mass. (Trade names—Boston Terrier, Bull Dog, Cowen, Invincible, Iron Clad, Service, Tiger.)
Buckley, J. W., Rubber Co., New York, N. Y. (Trade names—Dumol, Invincible, Ox, Trimol, Wabron, Yellow Jacket.)
Cincinnati Rubber Mfg. Co., The, Cincinnati, O. (Trade names—Arno, Losant, Norwood, Sandow.)
Clermont, Hi-Test, Hudson—Hudson Mechanical Rubber Co., New York.
Cleveland Rock Drill Co., The, Cleveland, Ohio.
Conomie—Union Rubber & Asbestos Co., Trenton, N. J.
Continental Rubber Co., Erie, Pa.
Crown—Quaker City Rubber Co., Philadelphia, Pa.
Diamond—Diamond Rubber Co., Inc., The, Akron O. (Trade names—Defiance, Diamond, Gulf, Lion, Portage, Sphinx, Titan.)
Double Service Packing Co., Philadelphia, Pa.
Ebonite—Quaker City Rubber Co., Philadelphia.
Globe Rubber & Tire Co., Inc., Trenton, N. J.
Goodrich, The B. F., Rubber Co., Akron, O. "Akron," "Falcon," "M. C. B." "Quarry," "Whitecover."
Goodyear—The Goodyear Tire & Rubber Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., New York. (Tradenames, G. P. Braided, M. C. B., Maltese Cross, Range, Ridgewood, Wallabout, U. S., Rescue.)
Hewitt Rubber Co., Buffalo, N. Y. (Trade names—Conservo, Elmwood, Hewitt, Linwood, Magnus, Standoil, Unit.)
Mechanical Rubber Co., The, Cleveland, Ohio. (Trade names—Buckeye, Marco, Neverleak, Sterling, 2XL.)
Mulconroy Company, Inc., Philadelphia, Pa. "Mulconroy," "Flexible Metallic," "Garnet, "Victor," "New Process."
New York Belting & Packing Co., New York, N. Y.
Owl—Pioneer Rubber Mills, San Francisco, Cal.
Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa. (metal).
Quaker City—Quaker City Rubber Co., Philadelphia, Pa.
Ranger—Union Rubber & Asbestos Co., Trenton, N. J.
Republic Rubber Co., The, Youngstown, O. (Trade names—Heavy Duty, Hector, Invader, Tower.)
Resistoil—Brunner Mfg. Co., Utica, N. Y.
Seal Rock—Pioneer Rubber Mills, San Francisco, Cal.
SSS—Goodall Rubber Co., Philadelphia, Pa.
Thermoid Rubber Co., The, 248 Chestnut St., Philadelphia, Pa. (Trade names—Beaconoid, Everoid, Trioid.)
United States Rubber Co., New York, N. Y.
Voorhees Rubber Mfg. Co., Jersey City, N. J. "American," "Barcus," "Boreas," "Colossus," "Mineralite," "Numatic," "Sensation," "Sentinel," "No. 1650," "Supero," "Union."
Westinghouse Traction Brake Co., Pittsburgh, Pa.

HOSE, RUBBER, ARMORED.

Akron—B. F. Goodrich Rubber Co., The, Akron, O.
American Metal Hose Co., Waterbury, Conn.
Armorflex—Advance Hose Mfg. Co., Philadelphia, Pa.
Defender—Woven Steel Hose & Rubber Co., Trenton, N. J.
Diamond Rubber Co., Inc., The, Akron, O. Trade names—Diamond, Titan, Sphinx, Gulf, Moose, Clipper.
Electric—Electric Hose & Rubber Co., Wilmington Del.
Globe Rubber & Tire Co., Inc., Trenton, N. J.
Goodall Rubber Co., Inc., Philadelphia, Pa.
Goodyear—The Goodyear Tire & Rubber Co., Akron, O.
The Gutta Percha & Rubber Mfg. Co., New York, N. Y
Hewitt Rubber Co., Buffalo, N. Y.
Interlocking—Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.
La Favorite Rubber Mfg. Co., Paterson, N. J.
Mulconroy Company, Inc., Philadelphia, Pa. "Mulconroy," "Dynamite," "Flexible Metallic," "New Process."
Norwood, Challenge, Royal—Cincinnati Rubber Co. Cincinnati.
O-K—Gutta Percha & Rubber Mfg. Co., New York, N. Y.
Pennsylvania Rubber Co., The, Jeannette, Pa.
Perfector—Woven Steel Hose & Rubber Co., Trenton, N. J.

HOSE, RUBBER, ASBESTOS COVERED.

Advance Hose Mfg. Co., Philadelphia, Pa.
Diamond Rubber Co., Inc., The, Akron, O.
Electric—Electric Hose & Rubber Co., Wilmington Del.
Mulconroy Co., Inc., Philadelphia, Pa. "Mulconroy," "Flexible Metallic."

HOSE, SAND BLAST.

Advance Rubber Mfg. Co., Philadelphia, Pa.
Arno, Losant—The Cincinnati Rubber Mfg. Co., Cincinnati, O.
Best Test, Conomie, Ranger—Union Rubber & Asbestos Co., Trenton, N. J.
Diamond Rubber Co., Inc., The, Akron, O. (Trade names — Defiance, Diamond Special, Lion, Sphinx, Titan.)
Double Cross—The Republic Rubber Co., Youngstown, O.
Goodyear—The Goodyear Tire & Rubber Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., The, New York, N. Y. (Trade names—Maltese Cross, Ridgewood, Triangle.)
Hoevel Mfg. Corp., Jersey City, N. J.
Mechanical Rubber Co., The, New York, N. Y (Trade names—Marco, 2XL.)
Republic Rubber Co., The, Youngstown, O.
United States Rubber Co., New York, N. Y

HOSE, STEAM.

(See also "Hose, Rubber" and "Tubing, Flexible, Metallic.")
Advance Hose Mfg. Co., Philadelphia, Pa.
Atlantic Mfg. Co., Wilmington, Del.
Breeze Metal Hose & Mfg. Co., Newark, N. J. "Fle-X-Met."
Cincinnati Rubber Mfg. Co., The, Cincinnati, O. (Trade names—Arno, Fidelity, Congo, Losant.)
Diamond Rubber Co., Inc., The, Akron, O. (Trade names—Diamond, Defiance, Elbon, Gulf, Titan.)
Energy—Hamilton Rubber Mfg. Co., Trenton, N. J.
Globe Rubber & Tire Co., Inc., Trenton, N. J.
Goodyear—The Goodyear Tire & Rubber Co., Akron, O.
Mechanical Rubber Co., The, Cleveland, Ohio. (Trade names—Buckeye, Marco, Palladium, 2XL.)
Mulconroy Co., Inc., Philadelphia, Pa. "Mulconroy," "All Metal," "Dynamite," "Flexible Metallic," "Hero," "Model," "New Process," "Victor."
New York Belting & Packing Co., Ltd., New York, N. Y.
Pioneer Rubber Mills, San Francisco, Cal. (Trade names—Seal Rock, Sunset, Victor.)
Republic Rubber Co., The, Youngstown, O. (Trade names—Chariot, Double Cross, Hector, Tower.)
Quaker City Rubber Co., Philadelphia, Pa. (Trade names—Atlantic, Crown, Ebonite, Hercules, Quaker City.)
Sensation—Voorhees Rubber Mfg. Co., Jersey City, N. J.
Thermoid Rubber Co., The, 248 Chestnut St., Philadelphia, Pa.
United States Rubber Co., New York, N. Y.
Voorhees Rubber Mfg. Co., Jersey City, N. J. "American," "Colossus," "Corona," "1507," "1521," "Power," "Sensation," "Sentinel," "Supero," "Tarpon."

HOSE, SUCTION.

Advance Hose Mfg. Co., Philadelphia, Pa.
Atlantic Mfg. Co., Wilmington, Del.
Best Test—Union Rubber & Asbestos Co., Trenton, N. J.
B, Invincible—J. W. Buckley Rubber Co., New York, N. Y.
Burmont—Goodall Rubber Co., Inc., Philadelphia, Pa.
Cincinnati Rubber Mfg. Co., Cincinnati, O. (Trade names—Broncho, Plymouth, Losant, Sandow.)
Conomie—Union Rubber & Asbestos Co., Trenton N. J.
Diamond Rubber Co., Inc., The, Akron, O. (Trade names—Clipper, Polar, Portage, Sphinx, X. X.)
Edson Mfg. Corp., Boston, Mass.
Globe Rubber & Tire Co., Inc., Trenton, N. J.
Goodyear Tire & Rubber Co., Akron, O.
Gutta Percha Rubber & Mfg. Co., New York, Tradenames, Maltese Cross, Ridgewood, Special Contractors, Wallabout.
Hewitt Rubber Co., Buffalo, N. Y. (Trade names—Elmwood, Linwood, Magnus, Maywood.)
Hudson Mechanical Rubber Co., New York, N. Y. (Trade names—Clermont, Hi-Test-Hudson.)
La Favorite Rubber Mfg. Co., Paterson, N. J.
Mechanical Rubber Co., The, Cleveland, Ohio. (Trade names—Buckeye, C 1854, Good Enough, Marco, Old Gold, Popular, Victor, 2XL.)
Mulconroy Co., Philadelphia, Pa. (Trade names—Hero, Model, Victor.)
Quaker City Rubber Co., Philadelphia, Pa.
Ranger—Union Rubber & Asbestos Co., Trenton, N. J.

Republic Rubber Co., The, Youngstown, O. (Trade names—Hector, No. 108, Republic, Tower.)
Sentry—Goodrich Rubber Co., B. F., Akron, O.
Thermoid Rubber Co., The, 248 Chestnut St., Philadelphia, Pa.
United States Rubber Co., New York, N. Y.

HOSE, WATER.
(See "Hose, Rubber.")

HOUSINGS, METER.

Modern Iron Works, Quincy, Ill.

HOUSINGS, VALVE.

Clark, H. W., Co., Mattoon, Ill.

HUBS, SADDLE.

Bignall Co., The, Medina, N. Y.
Gulf States Pipe Corp., Anniston, Ala.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Newbury Mfg. Co., Monroe, N. Y.
Sanitary Company of America, Linfield, Pa.
Swett, A. L., Iron Works, Medina, N. Y.
Zurn, J. A., Mfg. Co., Erie, Pa.

HUBS, VENT, SOIL PIPE.

Gulf States Pipe Corp., Anniston, Ala.
Newbury Mfg. Co., Monroe, N. Y.
Sanitary Company of America, Linfield, Pa.

HUMIDIFIERS AND HUMIDISTATS.

American Moistening Co., Boston, Mass.
Art Metal Radiator Cover Co., Chicago, Ill.
Brazil Stamping & Mfg. Co., Chicago, Ill.
Buddington—Geo. W. Diener Mfg. Co., Chicago, Ill.
Carrier—Buffalo Forge Co., Buffalo, N. Y.
Johnson Service Co., Milwaukee, Wis.
Kelly—Rhode Island Humidifier & Vent Co., Boston, Mass.
Koerting—Schutte & Koerting Co., Philadelphia, Pa.
Koven, L. O., & Bro., Jersey City, N. J.
Midwest Steel & Supply Co., Bradford, Pa.
National Regulator Co., Chicago, Ill.
Nugent, Thos., Sons, Inc., New York, N. Y.
Powers Regulator Co., Chicago, Ill.
Savo Mfg. Co., Chicago, Ill.
Sirocco—American Blower Co., Detroit, Mich.
Shipp, C. C., & Co., Indianapolis, Ind. (radiator).
Swan—Klipfel Mfg. Co., Chicago, Ill.
Thurbo-Humidifier — Parks-Cramer Co., Fitchburg, Mass.
Tillotson—Tillotson Humidifier Co., Providence, R. I.
Webster—Atmospheric Conditioning Corp., Philadelphia, Pa.

HYDRANT HEADS, PORTABLE.

Vulcan—**Ross Valve Mfg. Co., Troy, N. Y.**
Alaska, Murdock, T. E.—American Foundry & Mfg. Co., St. Louis, Mo.

HYDRANTS, FIRE.

American, Empire, National—American Foundry & Mfg. Co., St. Louis, Mo.
Beaumont Foundry & Machine Works, Kankakee, Ill.
Bourbon Copper & Brass Works, The, Cincinnati, O. "Bourbon."
Cayuta Mfg. Co., Sayre, Pa.
Chapman—Chapman Valve Mfg. Co., Indian Orchard, Mass.
Clow, James B., & Sons Co., Chicago, Ill.
Coffin—Coffin Valve Co., Boston, Mass.
Columbian—Columbian Iron Works, Chattanooga, Tenn.
Corey—Rensselaer Valve Co., Troy, N. Y.
Darling Valve & Mfg. Co., The, Williamsport, Pa.
Eclipse—John C. Kupferle Foundry Co., St. Louis, Mo.
Eddy—Eddy Valve Co., Waterford, N. Y.
Fox & Co., John, New York, N. Y.
Garratt's—W. T. Garratt & Co., San Francisco, Cal.
Howard Iron Works, Buffalo, N. Y. "Howard."
Kennedy—The Kennedy Valve Mfg. Co., Elmira, N. Y.
Ludlow—The Ludlow Valve Mfg. Co., Troy, N. Y.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Matthews—R. D. Wood & Co., Philadelphia, Pa.
Murdock Mfg. & Supply Co., The, Cincinnati, O.
Nichol, Thos. J., Co., Cincinnati, O.
Norwood Engineering Co., Florence, Mass. "Holyoke."
Quirin, John, & Bro., Saint Clair, Pa.
Smith, A. P., Mfg. Co., East Orange, N. J.
Vogt Bros. Mfg. Co., Louisville, Ky.
Walworth Company, Boston, Mass.
Waterous Fire Engine Works, St. Paul, Minn.

HYDRANTS, FIRE, INDEPENDENT NOZZLE.

Kennedy—The Kennedy Valve Mfg. Co., Elmira, N. Y.

HYDRANTS, FLUSH.
(See also "Washers, Street.")

Clow, James B., & Sons, Chicago, Ill.
American Foundry & Mfg. Co., St. Louis, Mo.
Kupferle, John C., Foundry Co., St. Louis, Mo. "Total Eclipse," "McNamara," "California."
Ludlow Valve Mfg. Co., The, Troy, N. Y.

HYDRANTS, FROST PROOF.

Acme Frost Proof Closet Mfg. Co., Baltimore, Md.
Can't Freeze—American Railway Hydrant & Valve Co., Stapleton, S. I., N. Y.
Murdock Mfg. & Supply Co., The, Cincinnati, Ohio.
Quirin, John, & Bro., Saint Clair, Pa.
Total Eclipse—John C. Kupferle Foundry Co., St. Louis, Mo.
Vogel Patent—Jos. A. Vogel Co., Wilmington, Del.

HYDRANTS, GARAGE AND STABLE.

Haydenville Co., The, Haydenville, Mass.
Total Eclipse—John C. Kupferle Foundry Co., St. Louis, Mo.
Vogel Patent—Jos. A. Vogel Co., Wilmington, Del.

HYDRANTS, IRRIGATING.

California—American Foundry & Mfg. Co., St. Louis, Mo.
California—John C. Kupferle Foundry Co., St. Louis, Mo.
Haydenville Co., The, Haydenville, Mass.

HYDRANTS, RAILROAD.

Can't Freeze—American Railway Hydrant & Valve Co., Stapleton, S. I., N. Y.

HYDRANTS, SELF-CLOSING.

American Foundry & Mfg. Co., St. Louis, Mo. "Alaska," "McNamara," "Murdock Pattern," "National," "T. E."
Goulds Pumps, Inc., Seneca Falls, N. Y. "Crescent," "Star."
Haydenville Co., The, Haydenville, Mass. "Lewis Patent."
Hinman, D. A., & Co., Sandwich, Ill. "Rising City."
Illinois Malleable Iron Co., Chicago, Ill. "Imico."
Murdock Mfg. & Supply Co., The, Cincinnati, O. (railway coach cleaning).
Savill's, Thomas, Sons, Philadelphia, Pa.
Total Eclipse—John C. Kupferle Foundry Co., St. Louis, Mo.
Vogel, Joseph A., Co., Wilmington, Del.

HYDRANTS, SPRINKLING.

American Foundry & Mfg. Co., St. Louis, Mo. "Alaska," "McNamara," "T. E.," "Murdock."
Haydenville Co., The, Haydenville, Mass
Kupferle, John C., Foundry Co., St. Louis, Mo. "Total Eclipse," "McNamara."
Mueller Co., Decatur, Ill.

HYDRANTS, WALL.

American—American Foundry & Mfg. Co., St. Louis, Mo.
Eclipse, Government Type—John C. Kupferle Foundry Co., St. Louis, Mo.
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
Peerless—Thos. Savill's Sons, Philadelphia, Pa.
Star—Goulds Pumps, Inc., Seneca Falls, N. Y.
Western Mfg. Co., Oskaloosa, Iowa.
XXth Century—Thomas Savill's Sons, Philadelphia.

HYDRANTS, WATER CRANE.

Kennedy Valve Mfg. Co., The, Elmira, N. Y.
National—American Foundry & Mfg. Co., St. Louis, Mo.

HYDRANTS, WOOD POST.

Challenge—American Foundry & Mfg. Co., St. Louis, Mo.
Challenge—John C. Kupferle Foundry Co., St. Louis, Mo.

HYDRANTS, YARD.

American Foundry & Mfg. Co., St. Louis, Mo. (Trade names—Alaska, California, McNamara, National, T. E., Murdock.)
Barnes Mfg. Co., The, Mansfield, O.
Chandler Pump Co., Cedar Rapids, Iowa. "Hawkeye."
Clark—H. W. Clark Co., Mattoon, Ill.
Clow—James B. Clow & Sons, Chicago, Ill.
Darling Valve & Mfg. Co., The, Ltd., Williamsport, Pa.
Douglas—W. & B. Douglas, Middletown, Conn.
Eddy—Eddy Valve Co., Waterford, N. Y.
Fairbanks—The Fairbanks Co., New York, N. Y.
Flint & Walling Mfg. Co., Kendallville, Ind. "Hoosier."
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y. ("Crescent," "Goulds," "No-Shock," "Star," "Sun," "McNamara Original.")

Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa. "Mertens."
Hinman, D. A., & Co., Sandwich, Ill. "Enterprise," "Rising City."
Illinois Malleable Iron Co., Chicago, Ill. "Imico."
Kemp, C. M., Mfg. Co., Baltimore, Md. "Climax."
Kennedy—The Kennedy Valve Mfg. Co., Elmira, N. Y.
Kupferle, John C., Foundry Co., St. Louis, Mo. (Trade names—California, McNamara, Total Eclipse.)
Ludlow—The Ludlow Valve Mfg. Co., Troy, N. Y.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Mast, Foos & Co., Springfield, O. "Buckeye."
Michigan Valve & Foundry Co., Detroit, Mich.
Murdock Original—Murdock Mfg. & Supply Co., Cincinnati, O.
Nichol, Thomas J., Co., Cincinnati, O.
Reading Foundry & Supply Co., Reading, Pa. "Amazon."
Reading Steel Casting Co., Inc., Bridgeport, Conn.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Sanitas Mfg. Co., Boston, Mass.
Savill's Improved—Thos. Savill's Sons, Philadelphia, Pa.
Standard Sanitary Mfg. Co., Pittsburgh, Pa. "Star."
Western Mfg. Co., Oskaloosa, Iowa. "Iowa."
Wolff Mfg. Corp., Chicago, Ill.

HYDRAULAGRAPHS.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.

HYDRO-EXTRACTORS.

Tolhurst Machine Works, Troy, N. Y.
Weston—American Tool & Machine Co., Boston, Mass.

HYDROMETERS.

Autocrat—American Thermo-Ware Co., New York, N. Y.
Freas—Francis L. Freas Glass Works, Conshohocken, Pa.
Genco—General Scientific Equipment Co., North Philadelphia, Pa.
Griebel Instrument Co., Carbondale, Pa.
Hays Corporation, The, Michigan City, Ind.
National Gauge Co., Brooklyn, N. Y.
Precision Thermometer & Instrument Co., Philadelphia, Pa.
Republic—Republic Flow Meters Co., Chicago, Ill.
S. O. S.—The Chaslyn Co., Chicago, Ill.
Scientific Instrument Co., Detroit, Mich.
Tag—C. J. Tagliabue Mfg. Co., Brooklyn, N. Y.
Tagliabue, G., Estate of, New York, N. Y.
Testo-Meter—A. E. Moeller, Brooklyn, N. Y.
Tycos—Taylor Instrument Companies, Rochester, N. Y.
Ustco Thermometer Co., Inc., New York, N. Y.
Weiss, A. A. & Son, Brooklyn, N. Y.

HYGROMETERS.

Foxboro Co., Inc., The, Foxboro, Mass.
Precision Thermometer & Instrument Co., Philadelphia, Pa.
Tycos—Taylor Instrument Companies, Rochester, N. Y.

IDLERS, BELT.

American Tool & Machine Co., Boston, Mass.
Barnard & Leas Mfg. Co., Moline, Ill.
Brown, A. & F., Co., The, Elizabethport, N. J.
Caldwell, H. W., & Son Co., Chicago, Ill.
Dodge Mfg. Corp., Mishawaka, Ind.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jeffrey Mfg. Co., Columbus, O.
Link-Belt Company, Chicago and Philadelphia.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Nordyke & Marmon, Inc., Indianapolis, Ind.

IGNITERS, DELAY, ELECTRIC.

Atlas Powder Co., Wilmington, Del.
Du Pont, E. I., de Nemours Powder Co., Wilmington, Del.
Hercules Powder Co., Wilmington, Del.

ILLUMINATORS, WATER COLUMN.

National Co., Inc., Cambridge, Mass.

INCINERATORS, GARBAGE AND TOILET

(See "Burners or Incinerators")

INCLINOMETERS.

Starrett Co., L. S., Athol, Mass.

INCREASERS, SOIL PIPE.

Atchison Specialty Mfg. Co., Atchison, Kans. "Asco."

INDICATORS, ABSOLUTE PRESSURE.

Uehling—Uehling Instrument Co., Paterson, N. J.
Zurn, J. A., Mfg. Co., Erie, Pa.

INDICATORS, AMMONIA.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Star—Star Brass Mfg. Co., Boston, Mass.
Tabor—The Ashcroft Mfg. Co., New York, N. Y.
Triumph—Trill Indicator Co., Corry, Pa.

INDICATORS AND INSTRUMENTS, COMBUSTION, AND FLUE GAS.

Boiler Room Improvement Co., Chicago, Ill. "Eclipse."
Tagliabue, Chas. J., Mfg. Co., Brooklyn, N. Y.

INDICATORS, CO_2.

Bacharach Industrial Instrument Co., Pittsburgh, Pa.
Burrell—Mine Safety Appliances Co., Pittsburgh, Pa.
Dwight—Dwight Mfg. Co., Chicago, Ill.

INDICATORS, FLOW.

Phenix—The Richardson-Phenix Co., Milwaukee, Wis.

INDICATORS, FLUE ROLLING.

Helwig Mfg. Co., St. Paul, Minn.

INDICATORS, FUEL OIL.

Billow—National Supply Co., Chicago, Ill.

INDICATORS, GAS ENGINE.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Bacharach Industrial Instrument Co., Pittsburgh, Pa.
Loomis—A. O. Loomis, Larimer, Pa.
Powell Co., The Wm., Cincinnati, O.
Star Brass Mfg. Co., Boston, Mass.
Tabor—The Ashcroft Mfg. Co., New York, N. Y.
Triumph—Trill Indicator Co., Corry, Pa.

INDICATORS, HYDRAULIC.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.

INDICATORS, LEAK.

Sonofone—H. W. Clark Co., Mattoon, Ill.

INDICATORS, LOW WATER.

(See also "Alarms, Low Water.")

Eclipse—Illinois Engineering Co., Chicago, Ill.
Wright-Austin Co., Detroit, Mich.

INDICATORS, MEAN PRESSURE.

Shaw's—Quimby Engineering Co., Philadelphia, Pa.
Hydro—Bacharach Industrial Instrument Co., Pittsburgh, Pa.

INDICATORS, OXYGEN, FURNACE.

Detectorod—Bennett Metal Treating Co., Elmwood, Conn.

INDICATORS, PIPE, ELECTRIC.

A. P. Smith Mfg. Co., East Orange, N. J.

INDICATORS, PYROMETER.

La Chatellier—Wilson-Maeulen Co., Inc., New York, N. Y.

INDICATORS, SAW TOOTH.

Champion—A. E. White Machine Works, Eau Claire, Wis.

INDICATORS, SPEED.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Atkins, E. C., & Co., Indianapolis, Ind.
Bowsher, N. P., Co., South Bend, Ind.
Brown & Sharpe Mfg. Co., Providence, R. I.
Disston & Sons Co., Henry, Philadelphia, Pa.
Empire—Green, Tweed & Co., New York, N. Y.
Goodell-Pratt Co. Greenfield, Mass.
Grant Mfg. & Machine Co., Bridgeport, Conn.
Hasler—Consolidated Instrument Co. of America, Inc., New York, N. Y.
L. X.—Manufacturers' Belt Hook Co., Chicago, Ill.
McDonnell Odometer Co., Chicago, Ill.
O-Z—O. Zernickow Co., New York, N. Y.
Star—Star Brass Mfg. Co., Boston, Mass.
Starrett Co., L. S., Athol, Mass.
Veeder Mfg. Co., Hartford, Conn.
Weiss—Greene, Tweed & Co., New York, N. Y.

INDICATORS, STEAM ENGINE.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Hydro—Bacharach Industrial Instrument Co., Pittsburgh, Pa.
Jost's Sons, Edmund, Newark, N. J.
Lippincott—Lippincott, A. C., East Orange, N. J.

"U.S." AUTOMATIC INJECTORS

and "AMERICAN" Ejectors

Over 600,000 in Use

The U. S. Automatic Injector has only four parts subject to wear, any of which can be replaced with a monkey wrench and two hands. All parts subject to wear are made of jet metal, especially developed to give exceptionally long life.

U. S. Automatic Injectors have built up a world-wide reputation for reliability, positive action, freedom from trouble and ease of repair.

The regular style, shown at the left, is adapted for use on either side of the boiler. Special styles are made to fit any condition of piping. A distinctive feature of the U. S. Automatic Injector is the drip cock, which drains the injector when not in use and prevents freezing.

The utmost care is taken to see that every U. S. Automatic Injector leaving the factory is perfect in every respect. Each injector is tested on different lifts and with various steam pressures. A card is attached, showing its range and the injector is guaranteed to work as the card indicates.

U. S. Automatic Injectors are stocked and distributed by over 2,000 steam and mill supply jobbers. More than 600,000 U. S. Automatic Injectors are in use, resulting in a large and steady demand for replacement and repair parts. This, together with our established resale prices which guarantee to the jobber a satisfactory margin of profit on U. S. Automatic Injectors and repair parts, makes it a satisfactory and profitable line for any jobber to handle.

"AMERICAN" Ejectors

Because of their internal construction **"AMERICAN" Ejectors** give superior service in raising water from deep wells, mines and pits, or emptying tanks, raising and transferring liquids (hot or cold) in tanneries, dye houses, etc., and for priming centrifugal pumps.

Other Products

A full line of Oil and Grease Cups; Priming Cups, Lubricators and Oiling Devices; Water Gauges, Oil Gauges, Gauge Cocks, Brass Strainers, Brass Plugs and Fusible Plugs.

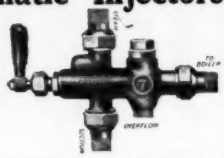
Complete Catalog Sent on Request

AMERICAN INJECTOR CO.

1481 Fourteenth St., Detroit, Mich.

Buffalo Automatic Injectors

Handle water up to 110°. Wide range on different steam pressures. Restarting, need no adjustment and easily cleaned. Easily graded for steady feed. Send for catalog.

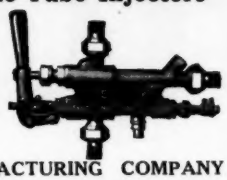


SHERWOOD MANUFACTURING COMPANY
1715 Elmwood Ave., Buffalo, N. Y.

SHERWOOD
A GOOD NAME TO REMEMBER WHEN BUYING POWER PLANT and INDUSTRIAL SPECIALTIES

Sherwood Double-Tube Injectors

Highly efficient for long lifts, high or low steam pressure, high temperature. Easy to connect and operate. Send for catalog.



SHERWOOD MANUFACTURING COMPANY
1715 Elmwood Ave., Buffalo, N. Y.

SHERWOOD
A GOOD NAME TO REMEMBER WHEN BUYING POWER PLANT and INDUSTRIAL SPECIALTIES

Outside Spring—Trill Indicator Co., Corry, Pa.
Pittsburgh Gage & Supply Co., Pittsburg, Pa.
Robertson-Thompson—James L. Robertson & Sons, New York, N. Y.
Star—Star Brass Mfg. Co., Boston, Mass.
Tabor—The Ashcroft Mfg. Co., New York, N. Y.
Triumph—Trill Indicator Co., Corry, Pa.

INDICATORS, TANK.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Baltimore Cooperage Co., Baltimore, Md.
Pneumercator Co., Inc., Brooklyn, N. Y.
Rockwell—Rockwell Furnace Co., New York, N. Y
Shaw's—Harry S. Parks Co., Philadelphia, Pa.

INDICATORS, TEST, LATHE.

Atlas Junior—Wallace Bros., Chicago, Ill.
Boulet—Zina Goodell Corp., Salem, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Cornell—Conley-Irwin Co., Detroit, Mich.
Ideal—Johnson & Miller, New York, N. Y.
Koch—Henry Koch, Nyack, N. Y.
Norton Co., Worcester, Mass.
Starrett Co., L. S., Athol, Mass.

INDICATORS, TRAIN.

Handlan—Handlan-Buck Mfg. Co., St. Louis, Mo.

INDICATORS, VALVE MOVEMENT.

Northern Equipment Co., Erie, Penna.

INJECTORS OR INSPIRATORS.

(See also Page 185)

American Injector Co., Detroit, Mich.
Automatic—Lunkenheimer Co., The, Cincinnati, O.
Betton, J. M., New York, N. Y. "Betton."
Buffalo Automatic and Sherwood Double Tube—Sherwood Mfg. Co., Buffalo, N. Y.
Champion—Jas. A. Griffiths & Son, Philadelphia, Pa.
Chicago, Ohio, Garfield—The Ohio Injector Co., Wadsworth, O.
Eastwood Wire Mfg. Co., Belleville, N. J. "Eastwood."
Eclipse—Jas. A. Griffiths & Son, Philadelphia, Pa.
Edna Brass Mfg. Co., The, Cincinnati, Ohio.
Excelsior—Victoria Metal Co., Erie, Pa.
Garrett, W. D., & Co., New York.
Hancock—The Hancock Inspirator Co., New York.
Keystone—Jas. A. Griffiths & Son, Philadelphia, Pa.
Kincaid Bros., Pittsburgh, Pa., "Eureka."
Koerting—Schutte & Koerting Co., Philadelphia, Pa.
The Leader—The Randle Machinery Co., Cincinnati, O
Little Giant—Rue Mfg. Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, O.
Metropolitan—Hayden & Derby Mfg. Co., New York
Metropolitan—Manning, Maxwell & Moore, Inc., New York, N. Y.
Nathan Mfg. Co., New York, N. Y. "Monitor," "Nathan," "New Nathan," "Simplex."
Penberthy—Penberthy Injector Co., Detroit, Mich.
Powell Co., The Wm., Cincinnati, O.
Superheater Co., The, New York, N. Y.
Unique—Rue Mfg. Co., Philadelphia, Pa.
Universal—Schutte & Koerting Co., Philadelphia, Pa
U. S.—American Injector Co., Detroit, Mich.
World—American Injector Co., Detroit, Mich.

INJECTORS, LOCOMOTIVE.

Edna Brass Mfg. Co., Cincinnati, O.
Hancock Inspirator—The Hancock Inspirator Co., New York.
Koerting—Schutte & Koerting Co., Philadelphia.
Monitor—The Edna Brass Mfg. Co., Cincinnati, O.
Nathan Mfg. Co., New York, N. Y.
Ohio, Garfield—Ohio Injector Co., Wadsworth, O.
Sellers, William, & Co., Philadelphia, Pa.
Superheater Co., The, New York, N. Y.
Walworth Company, Boston, Mass.

INKS, STENCIL AND MARKING.

Bradley's Two in One—A. J. Bradley Mfg. Co., New York, N. Y.
Markwell—Henry Moss & Co., Inc., New York, N. Y.
Matthews, Jas. H., & Co., Pittsburgh, Pa. (Trade names—Vulcan, Ebony Black.)
Pittsburgh Stamp Co., Inc., Pittsburgh, Pa.

INLETS, FRESH AIR.

Abendroth Bros., Port Chester, N. Y.
Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Alabama Pipe Co., Anniston, Ala.
Barber Mfg. Co., The, Ashtabula, O.
Bignall Co., The, Medina, N. Y.
Central Foundry Co., New York, N. Y.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
Eclipse—John C. Kupferle Foundry Co., St. Louis, Mo.
Fee & Mason Mfg. Co., New York, N. Y.
Gulf States Pipe Corp., Anniston, Ala.
H. & C.—Hart & Cooley Co., Inc., New Britain, Conn.
Hajoca Corporation, Philadelphia, Pa.
Hays Mfg. Co., Erie, Pa.
Indiana Foundry Co., Indiana, Pa.
J. R. S. Specialties Mfg. Co., Inc., The, New York, N. Y.
Modern Iron Works, Quincy, Ill.
Mott, J. L., Iron Works, The, Trenton, N. J.
Phoenix Brass Foundry, Irvington, N. J.
Reading Heater & Supply Co., Reading, Pa.
Sanitary Company of America, Linfield, Pa.
Swett, A. L., Iron Works, Medina, N. Y.
Wade Iron Sanitary Mfg. Co., Chicago, Ill.

INLETS, RAIN CONDUCTOR.

Sanitary Company of America, Linfield, Pa.

INLETS, SEWER.

American Foundry & Mfg. Co., St. Louis, Mo.
Clark, H. W., Co., Mattoon, Ill.
Clow, James B., & Sons, Chicago, Ill.
Concord Foundry Co., Concord, N. H.
Duplex Mfg. & Foundry Co., Elyria, O.
Hooker, O. V., & Son, St. Johnsbury, Vt.
Iowa Foundry & Mfg. Co., Ft. Dodge, Ia.
Star—The Guenther Foundry, Columbus, O.
Stuart Foundry Co., Detroit, Mich.
Treaty Co., The, Greenville, Ohio.

INSERTS, OR ANCHORS (FOR CONCRETE).

Ackerman-Johnson Co., Chicago, Ill.
Blake Specialty Co., Rock Island, Ill.
Chicago Expansion Bolt Co., Chicago, Ill.
Chicago Nipple Mfg. Co., Chicago, Ill.
Dayton Malleable Iron Co., Dayton, O. "Dayton."
E-Z—Oslund Specialty Co., Saint Paul, Minn.
Fischer & Hayes Rope & Steel Co., Chicago, Ill.
Hill Clutch Co., The, Cleveland, O.
Midwest Steel & Supply Co., Inc., Bradford, Pa.
Modern Mfg. Co., The, Cleveland, Ohio.
Norjo Mfg. Co., St. Louis, Mo.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Richmond—Richmond Screw Anchor Co., Brooklyn, N. Y.
Sebco—Star Expansion Bolt Co., New York, N. Y.

PENBERTHY INJECTOR CO.

Established 1886

DETROIT, MICH.

Manufacturers of Automatic Injectors

Canadian Factory: WINDSOR, ONTARIO, CANADA

PRODUCTS:

"Penberthy" Automatic Injectors."

Also manufacturers of Auto-Positive Injectors; Swimming Pool Heaters; "XL-96" Ejectors; Automatic Cellar Drainers; Washing Machine Drainers; Lawn Sprinklers; Safeguard Water Gauges; Water Heaters; Oil Cups; Grease Cups; Air Cocks; Carburetors; Oil Burners, etc.

TRADE MARK

PENBERTHY AUTOMATIC INJECTORS:

What the "Penberthy" Does:

All our claims for the "Penberthy" Injector are based on actual tests, as we have set for this machine a very high standard, which for years has been steadily advanced, and the "PENBERTHY" today is better than ever before. Every "Penberthy" Injector is carefully tested before leaving the factory, and no machine is allowed to go out that will not work on the following points, while nearly all of them will do much better:

Start Low: 20 to 22 pounds steam on 3-foot lift.

Work High: 165 to 170 pounds steam on 3-foot lift.

Lift Water: 20 to 24 feet on 60 to 80 pounds steam.

Handle Hot Water: 125° to 130° at 60 to 80 pounds steam.

115° to 120° at 100 pounds steam.

95° to 104° at 125 pounds steam.

Price List, Capacities, Horse Power, Size Connections, etc.

Size	Price	Horse Power Based on Ordinary Tub. Boiler	Horse Power Based on 30 lbs. Water per H. P. per hour	Pipe Connection	Capacity per Hour, 1 to 3 feet lift, 60 to 110 lbs. Steam Pressure	
					Maximum	Minimum
				Inches	Gallons	Gallons
O	$15.00	3 to 6	4 to 8	¼	60	35
OO	16.00	4 " 8	6 " 12	⅜	80	45
A	18.00	6 " 16	10 " 20	½	135	70
AA	20.00	12 " 22	15 " 30	½	180	100
B	25.00	17 " 32	22 " 45	¾	260	140
BB	30.00	20 " 45	25 " 60	¾	360	180
C	40.00	40 " 65	45 " 80	1	475	250
CC	45.00	45 " 80	50 " 100	1	600	325
D	55.00	50 " 100	60 " 135	1¼	800	425
DD	60.00	75 " 135	85 " 165	1¼	1000	525
E	75.00	100 " 180	125 " 235	1½	1400	740
EE	90.00	115 " 255	150 " 320	1½	1900	850
FF	125.00	200 " 400	250 " 500	2	3000	1600
GG	200.00	375 " 600	400 " 750	2½	4200	2150

PENBERTHY "XL-96" EJECTORS:

Lifts 22 to 25 Feet. Elevates 25 to 100 Feet, 30 to 100 Pounds Pressure.

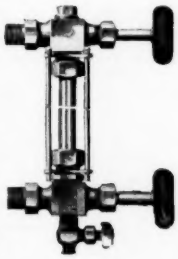
The lifting and elevating power is so combined in the "XL-96" Ejector as to make it unquestionably the best device of its kind. The principle and power contained in so small, handy and economical an instrument, continually suggests new uses, which often demand that the tubes of the ejector be proportioned particularly for the service. We have perfected and can furnish special ejectors singularly efficient in the work for which they are designed.

No.	Steam Connection, Inches	Suction and Discharge, Inches	Capacity, Gallons per Hour — 3-Foot Lift — Steam Pressure, Pounds — 40 to 65	3-Foot Lift — 20 to 40 or 65 to 100	50-Foot Elev. — 40 to 65	25-Foot Elev. — 40 to 65	Vertical Lift, Feet — 40 to 75	25 to 40 or 75 to 100	Price, Each — Brass	Iron Body Brass Jets
1	⅜	½	240	235	120	180	23	20	$ 8 00	.....
2	½	¾	500	450	250	375	25	22	10 00	.....
3	¾	1	840	700	420	625	25	22	15 00	.....
4	1	1¼	1350	1300	650	950	25	22	20 00	.....
5	1	1½	1950	1850	975	1450	25	22	25 00	$20 00
6	1¼	2	3500	3000	1750	2600	25	22	35 00	27 50
*7	1½	2½	5700	4350	2500	3750	25	22	50 00	40 00
*8	2	3	9500	8160	4750	7200	25	22	70 00	50 00
*9	2	3½	13600	12400	6800	10200	25	22	105 00	70 00
*10	2½	4	18400	17100	9200	13800	25	22	145 00	95 00

Sizes 5 and 6 will be sent in all brass, unless ordered with iron body and brass jets and steam connection.

*Unless ordered in brass, Sizes 7 to 10, inclusive, will be shipped with iron body, brass jets and steam connection.

PENBERTHY "SAFEGUARD" WATER GAUGES:



The new "Safeguard" Water Gauge is constructed of the best steam bronze metal, but sold at about the same price as is the ordinary, less desirable and non-automatic square body water gauge. It has but two moving parts, the automatic ball valves which are so constructed that their action is absolutely dependable at all times. All interior parts are self-cleaning by the action of the blow-off, so that the automatic action cannot be hindered in any way. It is of solid construction throughout and can be used with safety on very high steam pressures. This gauge is the result of 15 years' study and experience, and we feel confident that it is the utmost in automatic construction. It is the one certain protection against all accidents and injuries due to the breaking of gauge glasses.

Size, Shank, in.	½	¾
Price, each....	$10.00	$13.50

Security Insert Co., Philadelphia, Pa. (Trade names —Ajax, Security.)
Truscon Steel Co., Youngstown, O.
Universal—The Barrett Sales Co., Chicago, Ill.
Wrialco—Wright & Alexander Co., Rochester, N. Y.

INSTRUMENTS, AIRPLANE AND AUTOMOBILE.

National Gauge & Equipment Co., LaCrosse, Wis.

INSTRUMENTS, DRAUGHTSMEN'S AND ENGINEERS'.

Dietzgen, Eugene C., Chicago, Ill.
Gurley, W. & L. E., Troy, N. Y. (Transits, Levels, Plane Tables, Alidads, Compasses, Rods, Chains, Sketching Cases, etc.)
Keuffel & Esser Co., Hoboken, N. J.
Multiple—Gilson Slide Rule Co., Niles, Mich.
Kolesch & Co., New York, N. Y.
Pease-Chicago, Pease-Franklin—The C. F. Pease Co., Chicago, Ill.
Pittsburgh Instrument & Machine Co., Pittsburgh, Pa.
Sterling—Warren-Knight Co., Philadelphia, Pa.
White, David, Co., Inc., Milwaukee, Wis.

INSTRUMENTS, HARDNESS TESTING

Shore Instrument & Mfg. Co., The, Jamaica, N. Y. (Trade names—Durometer, Elastometer, Pyroscope, Scleroscope, Monotron).

INSTRUMENTS, MEASURING AND TESTING.

Minimeter—Norma Co. of America, Long Island City, N. Y.
Starrett Co., L. S., Athol, Mass.

INSTRUMENTS, OIL TESTING.

Tag, Saybolt—C. J. Tagliabue Mfg. Co., Brooklyn, N. Y.

INTENSIFIERS, STEAM, HYDRAULIC.

Chambersburg Engineering Co., Chambersburg, Pa.
Morgan Engineering Co., Alliance, Ohio.

INSULATING MATERIAL, ELECTRIC.

American Vulcanized Fibre Co., Wilmington, Del.
Barrett Mfg. Co., New York, N. Y.
Continental Fibre Co., Newark, N. J.
Croker National Fire Prevention Eng. Co., New York.
Diamond State Fibre Co., Bridgeport, Pa.
Economy—Economy Fuse & Mfg. Co., Chicago, Ill.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Hewitt, C. B., & Bros., Inc., New York, N. Y.
Johns-Pratt Co., Hartford, Conn.
Johns-Manville Corporation, New York, N. Y. "Keystone."
Leatheroid—Rogers Fibre Co., Boston, Mass.
Neponset—F. W. Bird & Son, East Walpole, Mass.
Nonpareil Brick—Armstrong Cork & Insulating Co., Pittsburgh, Pa.
Steward, D. M., Mfg. Co., Chattanooga, Tenn.
United States Mineral Wool Co., New York, N. Y.

INSULATING MATERIAL, SOUND AND HEAT PROOF.

(For "Pipe Covering," see "Covering, Asbestos and Magnesia, Pipe and Boiler.")

American District Steam Co., North Tonawanda, N. Y.
Ehret's—Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Hewitt, C. B., & Bros., Inc., New York, N. Y.
Insuline—Quigley Furnace Specialties Co., Inc., New York.
Johns-Manville Corporation, New York, N. Y. "J. M."
Nonpareil Cork Board—Armstrong Cork & Insulation Co., Pittsburg, Pa.
Rie-Wil Company, The, Cleveland, Ohio.
Sil-O-Cel—Celite Products Co., Chicago, Ill.
Standard Asbestos Mfg. Co., Chicago, Ill.
Union Fibre Co., Winona, Minn. (Trade names—Fibrofelt, Linofelt, Water-proof Lith.)
Westinghouse Electric & Mfg. Co., Philadelphia, Pa.

IRONS, BRANDING.

Everhot Mfg. Co., Maywood, Ill. (blow torch).
Grammes, L. F. & Sons, Inc., Allentown, Pa.
Hoggson & Pettis Mfg. Co., New Haven, Conn.
Vulcan—Vulcan Electric Heating Co., New York, N. Y.

IRONS, GASKET.

Delaware—Otto Bernz Co., Inc., Newark, N. J.
W. W.—Woodward-Wanger Co., Philadelphia, Pa.

IRONS, MEASURING & SLOTTED ANGLE.

Simplex Tool Co., Woonsocket, R. I.

IRONS, PLANE.

Buck Bros., Millbury, Mass.
Sandusky—Sandusky Tool Corp., Sandusky, O.

IRONS, PLUMBERS' BENDING AND YARNING.

American Saw & Tool Works, Chicago, Ill.
Anderson, W. H., Tool & Supply Co., Detroit, Mich.
Bernz Co., Otto, Newark, N. J.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Marcy Tool Works, Putnam, Conn.
Johnson, Wm., Firm of, Newark, N. J.
Klein-Logan Co., Pittsburg, Pa.
Mound—Mound Tool Co., St. Louis, Mo.
Mueller Co., Decatur, Ill.
National Tool Co., New York, N. Y.
Stanley Rule & Level Works, Atha Dept., New Britain, Conn.
W. C. Carver—Carver Tool Works, Spring Valley N. Y.

IRONS, SOLDERING.

(See "Coppers, Soldering.")

IRONS, TUYERE.

American Scale Co., Kansas City, Mo.
Buffalo Forge Co., Buffalo, N. Y.
Canedy-Otto Mfg. Co., Chicago Heights, Ill. (Trade names—C-O, Mammoth, Royal.)
Champion, Whirlwind—Champion Blower & Forge Co., Lancaster, Pa.
Improved Appliance Co., Brooklyn, N. Y.
Southern Skein & Foundry Co., Chattanooga, Tenn.
Sutton—Indiana Foundry Co., Indiana, Pa.

JACKETS, HOSE REPAIR.

Cooper—Callahan Co., The Cornelius, Boston, Mass.

JACKETS, WATER.

Adams Co., The, Dubuque, Ia.
Columbiana Boiler Co., Columbiana, O.

JACKS, AUTOMATIC LOWERING, GEARED.

Duff Manufacturing Co., The, Pittsburgh, Pa. "Barrett."

JACKS, AUTOMOBILE AND MOTOR TRUCK.

Atlas—Atlas Mfg. Co., Orlando, Fla.
Buckeye Jack Mfg. Co., The, Alliance, O.
Duff Manufacturing Co., The, Pittsburgh, Pa. "Barrett."
Elite Mfg. Co., Ashland, Ohio.
Excel—Randall-Faichney Co., Inc., Boston, Mass.
Giant—Wm. E. Pratt Mfg. Co., Chicago, Ill.
Hi-Speed—The Manley Mfg. Co., York, Pa.
Joyce—Joyce-Cridland Co., The, Dayton, O.
Lane—Lane Brothers Co., Poughkeepsie, N. Y.
Leader—National Standard Co., Niles, Mich.
Manco—Mann Corporation, Kankakee, Ill.
Millers Falls Co., Millers Falls, Mass.
Pup—Wm. E. Pratt Mfg. Co., Chicago, Ill.
Rees—Rees Mfg. Co., Pittsburgh, Pa.
Reliable—Elite Mfg. Co., Ashland, O.
Simplex—Templeton, Kenly & Co., Ltd., Chicago, Ill.
Springfield—Shawver Co., Springfield, Ohio.
Standard—National Standard Co., Niles, Mich.
Walker Mfg. Co., Racine, Wis. "Jump-Jack," "Roll-A-Car," "Walker's Badger."

JACKS, CABLE REEL.

Duff Manufacturing Co., The, Pittsburgh, Pa.

JACKS, CAR REPLACING.

Buckeye Jack Mfg. Co., The, Alliance, O.
Mosher—F. M. DeWeese Co., Chillicothe, O.
Simplex—Templeton-Kenly & Co., Ltd., Chicago, Ill.

JACKS, ENGINE.

Duff Manufacturing Co., The, Pittsburgh, Pa.

JACKS, FLOOR.

Neville—Neville Mfg. Co., Kewanee, Ill.

JACKS, GAGE HAND.

Ashcroft—Ashcroft Mfg. Co., New York, N. Y.

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JACKS, HYDRAULIC.

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Bethlehem Steel Co., Bethlehem, Pa.
Blackhawk Mfg. Co., Milwaukee, Wis.
Dienelt & Eisenhardt, Inc., Philadelphia, Pa.
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Duff Manufacturing Co., The, Pittsburgh, Pa. "Duff-Barrett."
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JACKS, JOURNAL.

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Duff Manufacturing Co., The, Pittsburgh, Pa. "Duff-Barrett."
Elmes, Chas. F., Engineering Works, Chicago, Ill. (heavy).
Fair Haven Foundry & Machine Co., Fair Haven, Vt.
Joyce—The Joyce-Cridland Co., Dayton, O.
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Lovejoy Tool Works, Chicago, Ill.
Millers Falls Co., Millers Falls, Mass.
Morgan Mfg. Co., Inc., Keene, N. H.
Oil Jack Co., New York, N. Y.
Moore—Walker Mfg. Co., Racine, Wis.
Mosher—F. M. DeWeese Co., Chillicothe, O.
Norton, A. O., Inc., Boston, Mass.
Pratt, Wm. E., Mfg. Co., Chicago, Ill. Trade names —Acme, Chicago, Liberty, Little Giant, Miller, Pratt, Sampson.
Rees—Rees Mfg. Co., Pittsburgh, Pa.
Reliable—Elite Mfg. Co., Ashland, O.
Simplex—Templeton-Kenly & Co., Ltd., Chicago, Ill.

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Link-Belt Company, Chicago and Philadelphia.
Simplex—Templeton, Kenly & Co., Ltd., Chicago, Ill.
Wheland Co., The, Chattanooga, Tenn.

JACKS, LOW HEIGHT.

Duff Manufacturing Co., The, Pittsburgh, Pa.

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Oklahoma Iron Works, Tulsa, Okla.
Simplex—Templeton, Kenly & Co., Ltd., Chicago, Ill.

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Dudgeon, Richard, New York.
Duff Manufacturing Co., The, Pittsburgh, Pa.
Joyce—The Joyce-Cridland Co., Dayton, O.
Lovejoy Tool Works, Chicago, Ill.
Simplex—Templeton, Kenly & Co., Ltd., Chicago, Ill.
Watson-Stillman Co., The, New York, N. Y.

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Buda—The Buda Co., Harvey, Ill.
Duff Manufacturing Co., The, Pittsburgh, Pa. "Barrett."
Joyce—The Joyce-Cridland Co., Dayton, O.
Justice, Philip S., & Co., Philadelphia, Pa.
Kalamazoo Railroad Supply Co., Kalamazoo, Mich
Lovejoy Tool Works, Chicago, Ill.
Mosher—F. M. De Weese Co., Chillicothe, O.
Norton—Norton, A. O., Inc., Boston, Mass.
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Simplex—Templeton, Kenly & Co., Ltd., Chicago, Ill
Standard—National Standard Co., Niles, Mich.
Verona—Verona Tool Works, Pittsburgh, Pa.
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Simplex—Templeton, Kenly & Co., Ltd., Chicago, Ill.

JACKS, TELESCOPIC.

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Joyce—The Joyce-Cridland Co., Dayton, O.

JACKS, TRAVERSING.

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Duff Manufacturing Co., The, Pittsburgh, Pa. "Barrett," "Duff."
Hoyt—Kalamazoo Railway Supply Co., Kalamazoo, Mich.

Joyce—The Joyce-Cridland Co., Dayton, O.
Le Count—Lecount, W. G., Tool Works, South Norwalk, Conn.
Millers Falls Co., Millers Falls, Mass.
Peerless—New London Vise Works, New London, Conn.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Starrett Co., L. S., Athol, Mass.
Swett Iron Works, A. L., Medina, N. Y.
Telescopic—Lovejoy Tool Works, Chicago, Ill.
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Billings & Spencer Co., The, Hartford, Conn.

JAWS, PIPE, FOR VISES.

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Elgin—Bon Mfg. Co., Elgin, Ill.
Vichek Tool Co., The, Cleveland, O.
Vulcan—J. H. Williams & Co., Buffalo, N. Y.
Walworth Company, Boston, Mass.

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Marnot—National Alloys Co., Detroit, Mich.

JAWS, VISE, FIBRE FACE.

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JAWS, VISE, HOSE CLAMP.

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Atkins, E. C., & Co., Indianapolis, Ind. "A. A. A."
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Chase Turbine Mfg. Co., Orange, Mass.
Crescent—Crescent Machine Co., Leetonia, O.
Emmert Mfg. Co., Waynesboro, Pa.
Hanchett—Machinery Company of America, Big Rapids, Mich.
H. & A.—Heston & Anderson, Fairfield, Iowa (bench)
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Myers Machine Co., Sheboygan, Wis. (belt driven).
Nazel Engineering & Machine Works, Philadelphia, Pa. (electric, bench, portable).
Northfield Foundry & Machine Co., Northfield, Minn. (hand).
Sidney Machine Tool Co., Sidney, O.
Silver—The Silver Mfg. Co., Salem, O.
Towsley—John T. Towsley Mfg. Co., Cincinnati, O.
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Whipple—Joseph Carr Co., Inc., Philadelphia, Pa.

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Goetz Brass Co., Chicago, Ill.
Hajoca Corporation, Philadelphia, Pa.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Imperial Brass Mfg. Co., Chicago, Ill.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.

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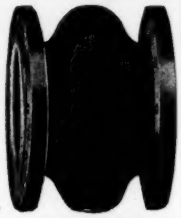

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Adsco—American District Steam Co., North Tonawanda, N. Y.
Connor, M. A., Lockport, N. Y.
Flexo Supply Co., St. Louis, Mo. "Flexo."
Peck Bros. & Co., New Haven, Conn.
Powell, Wm., Co., Cincinnati, O.

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Clow, James B., & Sons, Chicago, Ill.
Exeter Brass Works, Exeter, N. H.
Goetz—Goetz Brass Company, Chicago, Ill.
Lancaster Iron Works, Inc., Lancaster, Pa.
Security—The Chicago Screw Co., Chicago, Ill.

JOINTS, PIPE, EXPANSION.

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American District Steam Co., North Tonawanda, N. Y. "Adsco," "Duplex Sleeve," (iron and steel).
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Badger & Sons Co., E. B., Boston, Mass.
Badger—Badger Fire Extinguisher Co., Boston, Mass.
Barco Manufacturing Co., Chicago, Ill.
Belfield Co., H., Philadelphia, Pa.
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Gerstein & Cooper Co., South Boston, Mass. (copper).
Griscom Russell Co., New York, N. Y.
Harris, Arthur, & Co., Chicago, Ill. (copper).
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Hoffmann Mfg. Co., B., Milwaukee, Wis. (Brass and Iron.)
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Howard—Howard Iron Works, Buffalo, N. Y.
Illinois—Illinois Engineering Co., Chicago, Ill.
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Kaltenthaler, H. J., Philadelphia, Pa.
Kellogg, M. W., Co., New York, N. Y.
Koven, L. O., & Bro., Jersey City, N. J.
Lunkenheimer Co., The, Cincinnati, O.
McRae & Roberts Co., Detroit, Mich.
Oil Well Supply Co., Pittsburgh, Pa.
Peco—Pittsburgh Engineering Co., Jeannette, Pa.
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Powell Wm., Co., The, Cincinnati, O.
Ray—Ray Expansion Joint Co., Inc., Akron, O.
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Stender Coppersmith Co., The, Pittsburgh, Pa.
Tyler—R. W. Sharon Co., Pittsburgh, Pa. (guided).
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Walworth Company, Boston, Mass.
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Van Stone—Cornell & Underhill, New York, N. Y.
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Van Stone—Lumsden & Van Stone Co., Boston.
Van Stone—Murray W. Sales Co., Detroit, Mich.
Van Stone, Standard—Jay H. Newbury & Son, Goshen, N. Y.
Walmanco—Walworth Company, Boston, Mass.
Whitlock Coil Pipe Co., Hartford, Conn.

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Exeter Brass Works, Exeter, N. H.
Fries & Co., Buffalo, N. Y.
Haydenville Co., The, Haydenville, Mass.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
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Mueller Co., Decatur, Ill.
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Durbin Malleable Iron Foundries Co., East St. Louis, Ill.
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Badger, E. B., & Sons Co., Boston, Mass.
Harris, Arthur, & Co., Chicago, Ill.
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Koven, L. O., & Bro., Jersey City, N. J.
Krenz, Oscar, Copper & Brass Works, Inc., The, San Francisco, Cal.
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Milwaukee Boiler Mfg. Co., The, Milwaukee, Wis.
Munroe, R., & Sons Mfg. Corp., Pittsburgh, Pa.
O'Brien Boiler Works Co., John, St. Louis, Mo.
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Biggs Boiler Works, East Akron, O.
Buzzer—Charles A. Hones, Inc., Baldwin, Long Island, N. Y.
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Improved Appliance Co., Brooklyn, N. Y.
Koven, L. O., & Bro., New York, N. Y.
Mullins Body Corp., Stamping Dept. A., Salem, O.
Rockwell, W. S., Co., New York, N. Y.
Trent, Harold E., Co., Philadelphia, Pa. (Electric).
Wall Mfg. Supply Co., P., Pittsburgh, Pa.
Wilfong Iron Works Co., Millard F., Philadelphia, Pa.

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Barber Asphalt Co., The, Philadelphia, Pa.
Biggs Boiler Works Co., East Akron, O.
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Columbiana Boiler Co., Columbiana, Ohio.
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Groen Mfg. Co., Inc., Chicago, Ill.
Hamler Boiler & Tank Co., Chicago, Ill.
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Holmberg, Chas., & Co., Chicago, Ill.
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Improved Appliance Co., Brooklyn, N. Y.
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Morrison Bros., Dubuque, Iowa.
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Barber Asphalt Co., The, Philadelphia, Pa.
Biehl Iron Works, Inc., The, Reading, Pa.
Biggs Boiler Works Co., East Akron, O.
C. H. & E.—C. H. & E. Mfg. Co., Milwaukee, Wis.
Columbiana Boiler Co., Columbiana, O.
Evans, F. H., Brooklyn, N. Y.
Improved Appliance Co., Brooklyn, N. Y.
Kinney—Kinney Mfg. Co., Boston, Mass.
Koven, L. O., & Bro., Jersey City, N. J.
Littleford Bros., Cincinnati, O.
Lyman—Benj. K. Lyman & Co., Chicago, Ill.
Macleod Co., The, Cincinnati, O.
Petroleum Iron Works, Sharon, Pa.
Reliance—Universal Road Machinery Co., Kingston, N. Y.
Riter-Conley Mfg. Co., Pittsburgh, Pa.

KEYS, AIR VALVE, RADIATOR.

Keeney Mfg. Co., The, Newington, Conn.

KEYS, CENTER OR DRIFT.

Whitman & Barnes Mfg. Co., The, Akron, O.
Williams, J. H. & Co., Buffalo, N. Y.

KEYS, GAS VALVE.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Columbus Brass Co., The, Columbus, O.
Dependable—Detroit Brass & Malleable Works, Detroit, Mich.
Erlez Stove & Mfg. Co., Erie, Pa.
Exeter Brass Works, Exeter, N. H.
Hays Mfg. Co., Erie, Pa.
Pioneer Brass Works, Indianapolis, Ind.
Powell, Wm., Co., Cincinnati, O.

KEYS, MACHINE, FLAT SPRING.

American Nut & Bolt Fastener Co., The, Pittsburgh, Pa.
Hindley Mfg. Co., Valley Falls, R. I.

KEYS, MACHINE, SQUARE AND FLAT RIVETED.

American Nut & Bolt Fastener Co., The, Pittsburgh, Pa.
Billings & Spencer Co., Hartford, Conn.
Hindley Mfg. Co., Valley Falls, R. I.
Keytite—Smith & Serrell, Newark, N. J.
Leard, Wm., Co., New Brighton, Pa.
Moltrup Steel Products Co., Beaver Falls, Pa.
Morton Mfg. Co., Muskegon Heights, Mich. (Plain and Gib, Woodruff, Special.)
Mullins Body Corp., Stamping Dept. A, Salem, O.
Pickering, R. S., Co., Sharon Hill, Pa.
Union Drawn Steel Co., Beaver Falls, Pa. (Woodruff.)
Whitney—Whitney Mfg. Co., Hartford, Conn. (Woodruff.)
Williams, J. H., & Co., Buffalo, N. Y.
Wood, T. B., Sons Company, Chambersburg, Pa.

KEYS, SPLIT.

Pickering Co., R. S., Sharon Hill, Pa.

KEYS, STOP COCK AND VALVE.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
Columbus Brass Co., Columbus, O.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Exeter Brass Works, Exeter, N. H.
Hauer, J. B., Inc., Brooklyn, N. Y.
Hays Mfg. Co., Erie, Pa.
Lord—The C. H. Yonts Co., Meadville, Pa.
Modern Iron Works, Quincy, Ill.
Powell, Wm., Co., Cincinnati, O.
Russell, W. A., & Co., New York, N. Y.
Sanitary Company of America, Linfield, Pa.
United Brass Mfg. Co., Cleveland, O.

KEYS, STREET WASHER AND HYDRANT.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
Anderson, W. H., Tool & Supply Co., Detroit, Mich.
Central Foundry Co., New York, N. Y.
Detroit Brass & Malleable Works, Detroit, Mich.
Flagg, Stanley G., & Co., Philadelphia, Pa.
Glenn Mfg. Co., St. Charles, Ill.
Goulds Mfg. Co., Seneca Falls, N. Y.
Hays Mfg. Co., Erie, Pa.
Hauer, J. B., Inc., Brooklyn, N. Y.
Imico—Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., Elmira, N. Y.
M.I.W.—Modern Iron Works, Quincy, Ill.
Pittsburgh Valve & Fittings Co., Barberton, O.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
United Brass Mfg. Co., Cleveland, O.

KITS, PLUMBERS' TOOL.

Gross, William M., Co., Sharon, Pa.
Starbuck, R. M., & Sons, Hartford, Conn.
Woodward-Wanger Co., Philadelphia, Pa.

KNIVES, BACK.

Gage Mfg. Co., Gardner, Mass.
Lovejoy, D., & Son, Lowell, Mass.

KNIVES, BAND.

Burrill, J. D. & Son, Ilion, N. Y.
Fowle, John L., Co., Woburn, Mass.

KNIVES, BELT.

American Tool & Machine Co., Boston, Mass.
Clemson Knife Co., Woburn, Mass.
Lovejoy, D. & Son, Lowell, Mass. (Splitting.)
Lyons, Edward S., Woburn, Mass.
Mulherin Belt Knife Co., Peabody, Mass.
Simonds Saw & Steel Co., Fitchburg, Mass.
Standard Leather Machinery Sales Co., Chicago, Ill.

KNIVES, CHIPPING.

D. R. Barton—Mack & Co., Rochester, N. Y.
Bernz, Otto, Co., Newark, N. J.
Johnson, Wm., Firm of, Newark, N. J.
Ohio Knife Co., Cincinnati, O.
Sayre, L. A., Company, Newark, N. J.

KNIVES, CIRCULAR.

Atkins, E. C., & Co., Indianapolis, Ind.
Southern—Southern Saw Works, Atlanta, Ga.
Wapakoneta Machine Co., Wapakoneta, O.

KNIVES, COOPERAGE, LEATHER, PAPER AND VENEER.

Atkins, E. C., & Co., Indianapolis, Ind.
D. Lovejoy & Son, Lowell, Mass.
American Manganese Bronze Co., Holmesburg, Philadelphia, Pa.

KNIVES, DRAW.

Barton—Mack Tool Co., Inc., East Rochester, N. Y.
Buck Bros., Millbury, Mass.
Crescent Co., Inc., The, Meriden, Conn. "Crescent."
Dasco—Damascus Steel Products Co., Rockford, Ill.
Greenlee—Greenlee Bros. & Co., Rockford, Ill.
Jennings, C. E., & Co., New York, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Russell & Irwin Mfg Co., New Britain, Conn.
Smith, The H. D., Co., Plantsville, Conn. "Perfect Handle."
Swan Co., The, James, Seymour, Conn.
Wilkinson & Co., A. J., Boston, Mass. (folding).

KNIVES, HACK.

Landers, Frary & Clark, New Britain, Conn.
W. C. Carver—Carver Tool Works, Spring Valley N. Y.

KNIVES, MACHINE.

American Saw & Tool Works, Chicago, Ill.
Arnold—H. H. Arnold Co., Inc., Rockland, Mass.
AAA—E. C. Atkins & Co., Indianapolis, Ind.
Bailey & Blendinger Mfg. Co., Woburn, Mass.
Chattanooga Saw Works, Chattanooga, Tenn.
Cleveland Knife & Forge Co., Cleveland, O.
Dayton—The A. A. Simonds-Dayton Co., Dayton, O.
Detroit Edge Tool Works, Detroit, Mich. (paper cutting).
Disston, Henry & Sons, Inc., Philadelphia, Pa.
Dowd Knife Works, R. J., Beloit, Wis.
Empire Machine Works, Mount Morris, N. Y.
Fowle, John L., Woburn, Mass.
Fox Machine Co., Jackson, Mich.
Gage Mfg. Co., Gardner, Mass.
Griffiths, Albert, Saw Co., The, Boston, Mass.
Grammes, L. F., & Sons, Allentown, Pa.
Hankey, A. C., & Co., Rochdale, Mass.
Hardy, L., Co., Worcester, Mass.

Huther Bros. Saw Mfg. Co., Inc., Rochester, N. Y.
Jesseph Saw & Tool Works, Detroit, Mich. (planer).
Lancaster Machine & Knife Works, Lancaster, N. Y.
Lovejoy, D., & Son, Lowell, Mass.
Mack Tool Co., Inc., East Rochester, N. Y.
O. K. Co.—The Ohio Knife Co., Cincinnati, O.
Pittsburgh Knife & Forge Co., Pittsburgh, Pa.
Sandusky Tool Corp., Sandusky, O.
Simonds Saw & Steel Co., Fitchburg, Mass.
Sweet Temper—Cleveland Knife & Forge Co., Cleveland, O.
Taylor, Stiles & Co., Riegelsville, N. J. (planer).
Tinker, F., & Sons Co., Philadelphia, Pa.
Toledo Saw & Supply Co., The, Toledo, O.
Tungsten Temper—Salter Edge Tool Co., Grand Rapids, Mich.
Wapakoneta Machine Co., Wapakoneta, Ohio (paper, planer and veneer).
Waymoth, A. D., & Co., Fitchburg, Mass. (circular and variety).
White, L. & I. J., Co., Buffalo, N. Y.
Woodworkers' Tool Works, Chicago (moulding).
Zeiller & Nagel, Brooklyn, N. Y.

KNIVES, PACKING OR PADDLE.

Verona Tool Works, Pittsburgh, Pa.

KNIVES, ROTARY SHEAR.

Hunter Saw & Machine Co., Pittsburgh, Pa.
Tinker, F., & Sons, Company, Philadelphia, Pa.

KNURLS, BATTERY.

National Acme Co., The, Cleveland, O.

LABELS, BIN, FOR SHOPS, GARAGES, SUPPLY HOUSES, ETC.

Haddon Bin Label Co., Haddon Heights, N. J.

LACERS, BELT.

"Clipper"—Clipper Belt Lacer Co., Grand Rapids, Mich.
Detroit—Detroit Belt Lacer Co., Detroit, Mich.
Jackson Belt Lacers—Birdsboro Steel Fdy. & Mach. Co., Birdsboro, Pa.
Peerless—Peerless Belt Lacing Machine Co., Philadelphia.

LACING, BELT, GUT.

American Gut String Mfg. Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., Chicago, Ill.

LACING, BELT, LEATHER AND RAWHIDE.

A. B. C.—Kerr & Co., Inc., New York, N. Y.
Alenco—W. D. Allen Mfg. Co., Chicago, Ill.
Alexander—Alexander Bros., Inc., Philadelphia, Pa.
Atlantic Mfg. Co., Wilmington, Del.
Apex—W. H. Salisbury & Co., Inc., Chicago, Ill.
Bickford & Francis Belting Co., Buffalo, N. Y.
Black, Jewell—Jewell Belting Co., Hartford, Conn.
Blackstone, Congress—Bennett-McGuire Belting Co., **St. Louis, Mo.**
Blu-Skin—Henry K. Barnes Co., Boston, Mass.
Bond, Charles, Co., Philadelphia, Pa.
Bonner & Barnewall, Inc., New York, N. Y.
Bradford Belting Co., The, Cincinnati, O.
California Tanning Co., St. Louis, Mo. (Trade names—Blue Velvet, Indian Tan, Neverbreak Buckskin, Peerless.)
Central Belting Co., New York, N. Y.
Chicago Belting Co., Chicago, Ill. Trade names—Indian Tanned, Reliance, Sterling.
Chicago Rawhide Mfg. Co., Chicago, Ill. (Trade names—Chicago Selected, Noxall, Safety.)
Chrome—H. F. Kempe & Co., Chicago, Ill.
Chrome—National Leather Belting Co., New York, N. Y.
Cocheco—I. B. Williams & Sons, Dover, N. H.
Cornelius Mill Furnishing Co., St. Louis, Mo.
Crescent—Crescent Belt Fastener Co., Inc., New York, N. Y.
Druidox, Hindu, Musco—The Druid Oak Belting Co., Inc., Baltimore, Md.
Dux-bak Chrome, Giant Tanned, Gowanus Rawhide—Chas. A. Schieren Co., New York, N. Y.
Eagle Chrome, Eagle Indian Tan, Eagle Rawhide—American Lace Leather Co., Inc., Richmond, Va.
Eagle—Eagle Belting Company, Chicago, Ill.
Eagle Counter & Leather Co., The, Cincinnati, O.
Economy—J. H. Hemmerdinger & Son, Brooklyn, N. Y.
Extra—H. F. Kempe & Co., Chicago, Ill.
Flintstone—Edw. R. Ladew Co., Inc., New York, **N. Y.**
Franklin Belting Co., York, Pa.
Gibraltar—Burton Greene Leather Co., Chicago, Ill.
Graton & Knight Co., Worcester, Mass. "G. & K.," "Indian Tanned," "Crescent," "Royal Worcester," "Bar Brand."
Helvetia—Groezingers, G., Sons, Lancaster, Pa.
Hercules—Hercules Belt Lace Co., Waukegan, Ill.
Hudson Belting Co., Worcester, Mass. (Chrome, Indian Tanned.)
Hunt Co., Henry C., Boston, Mass.
Illinois Mechanical Leather Co., Chicago, Ill.
Indian Tanned—Bay State Belting Co., Boston, Mass
Indian Tanned—Central Belting Co., New York, N. Y.
Indian Tan—National Leather Belting Co., New York.
Ireson, Chas. L., Inc., Boston, Mass.
Johnson Belting Co., New York, N. Y.
Kayser Tanning Co., St. Louis, Mo. (Trade names—Anchor, Indian Tan, Pawnee.)
Kerr's Improved, Kerr's Original—Kerr & Co., Inc., New York, N. Y.
King Philip—Jewell Belting Co., Hartford, Conn.
Long Life—Missouri Belting Co., St. Louis, Mo.
L. X. Safety First (twisted)—Manufacturers' Belt Hook Co., Chicago, Ill.
Massasoit—Holyoke Belting Co., Holyoke, Mass.
McLanathan, F. W., & Son, Lawrence, Mass.
Monarch Belting Co., The, Cleveland, O.
Monarch—The Bradford Belting Co., Cincinnati, O.
Mule Skin—N. Palmer & Co., Bridgeport, Conn.
Navajo—The Bradford Belting Co., Cincinnati, O.
Ne Pac—Capen Belting & Rubber Co., St. Louis, Mo.
Nott, W. S., Co., Minneapolis, Minn.
New York Leather Belting Co., New York, N. Y. **Trade names—Bull Dog, Chrome, Indian Tanned,** Lion, Phoenix.
Norwich Belt Mfg. Co., Norwich, Conn. (Trade names—Acme, Ajax, Chrome, Defiance, Indian Tanned, Lace, Rawhide.)
Ofco Tan—Olmsted Flint Corp., Cambridge, Mass.
Oriole—I. B. Williams & Sons, Dover, N. H.
Pacific Belting Co., Seattle, Wash.
Page Belting Co., Concord, N. H. (Trade names—Crown Tanned, Crown Mechanical, Hercules, Granite.)
Palmer, N., Belting Co., Bridgeport, Conn.
Pequoit—Holyoke Belting Co., Holyoke, Mass.
Philadelphia Belting Co., Philadelphia.
Raniville, F., Co., Grand Rapids, Mich.
Reinhold Belting & Strap Co., Brooklyn, N. Y.
Rex—H. F. Kempe & Co., Chicago, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Shield—McCauley Belting Co., Chicago, Ill.
Shingle-Gibb Leather Co., Philadelphia, Pa.
Southwick, Geo. W., Co., Stamford, Conn. (twisted).
Steer—Joseph Meier's Sons, Newark, N. J.
Superior—Millard Leather Co., South Attleboro Mass.
Surface Tan—American Lace Leather Co., Inc., Richmond, Va.
Tan 9—Couse & Bolten, Inc., Newark, N. J.
Tannate—J. E. Rhoads & Sons, Philadelphia, Pa.
Unexcelled—Geo. Rahmann & Co., New York, N. Y.
Victor—Missouri Belting Co., St. Louis, Mo.
Vim—E. F. Houghton & Co., Philadelphia (plain and metal tipped).
Walker, Chas. W. Sons & Co., Newark, N. J.
Warren Belting Co., Worcester, Mass. (Trade names—Warren Indian Tanned, Warren Raw Hide.)
Webb Belting Co., Kansas City, Mo.

LACING, BELT, STEEL AND WIRE.

(See also next page.)

A. B. C.—Kerr & Co., Inc., New York, N. Y
Alligator—Flexible Steel Lacing Co., Chicago, Ill.
Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa. (Coil).
Bristol's—The Bristol Co., Waterbury, Conn.
Bull Dog—Detroit Belt Lacer Co., Detroit, Mich.
Callahan & Co., Geo., New York, N. Y.
Clipper—Clipper Belt Lacer Co., Grand Rapids, Mich. (See advertisement on page 194.)
Crescent Belt Fastener Co., New York, N. Y.
Columbia Novelty Co., St. Louis, Mo. (Trade names—Crescent, Stag, Bull Dog.)
Eclipse Specialty Mfg. Co., Chicago, Ill.
Globe—Hayden Supply Co., Grand Rapids, Mich.
Hercules Belt Lace Co., Waukegan, Ill.
Kerr's Improved—Kerr & Co., Inc., New York, N. Y.
Manufacturers' Belt Hook Co., Chicago, Ill. (Trade **names—Climax Flexible, L. X.-Rainbow, 20th Century.)**
Malin & Co., Cleveland, O.
O. K.—Hudson Belt Fastener Co., New York.
Page Belting Co., Concord, N. H.
Peerless Belt Lacing Machine Co., Philadelphia, Pa. (Coil).
Perfection—Hudson Belt Fastener Co., New York.
Southwick's—The Geo. W. Southwick Co., New York

LADDERS, BOILER ROOM, STEEL.

New Britain Machine Co., The, New Britain, Conn.

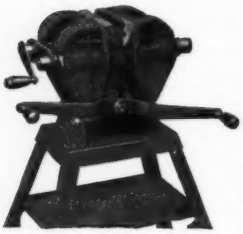
LADDERS, FIRE.

Brown Safety Ladder Mfg. Co., Chicago, Ill.
Pirsch, Peter, & Sons, Kenosha, Wis.
Rope Fire Escape Co., Philadelphia, Pa.

For Economy, Safety and Reliability Use the Clipper Method of Belt Lacing

No two hook points enter the belt directly opposite each other, therefore, no belt fibres are broken

The New Clipper Speed Lacer No. 8

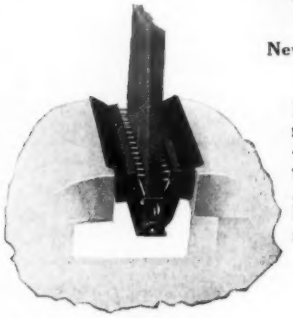


A three-quarter turn of the crank — and the powerful jaws of this new lacer force a row of Clipper Hooks cleanly and uniformly into an eight-inch belt. Less than 1½ minutes are required to lace both ends of a belt.

Standard "Clipper" Belt Lacer No. 3

For general belt lacing work. A 24-pound machine. Laces any belt not over ⅜ inch thick, without removal from shaft.

Price $25.00



New Baby "Clipper" Belt Lacer No. 0

For use in any ordinary vise. Laces belts 4 in. wide and ⅜ in. thick, in one operation. All *"Clipper"* Belt Lacers built of strongest and best materials.

Price $3.50

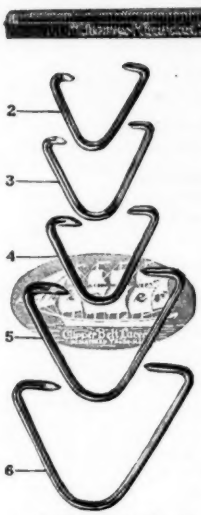
The Open End Clipper Belt Cutter

Belts which are squared with the Clipper Belt Cutter will not cause any undue strain on any part of your belting fiber or lacing. A worthy companion to the Clipper line. Order one now to save valuable time and to make your lacing more efficient. Workmanship and material fully guaranteed.

A tool for cutting belting from the roll as well as for squaring belt ends preparatory to lacing them.

Weight 9 lbs. 5 oz. Price $15.00
Also made with stationary ends.
Weight 9 lbs. Price $12.00

"Clipper" Hooks are made from a special steel wire which combines great tensile strength and ability to withstand fatigue. Cards hold 84 hooks each and are packed 12 cards (one size) in a box with sufficient connecting pins. Each box will lace 80 inches — total width, both ends of belt. The following sizes are only for use in Nos. 8, 3 and 0 *"Clipper"* Belt Lacers.



Actual Size of Hooks

	Price Per Box
No. 2—For thin belts over small sized pulleys	$0.95
No. 3—For thin belts over medium sized pulleys	$1.00
No. 4—For belts not over ¼ inch thick	$1.00
No. 5—For belts not over 5/16 inch thick	$1.15
No. 6—For belts not over ⅜ inch thick	$1.50

10% discount allowed on single purchases (one delivery) of 25 boxes or more.

CLIPPER RUST-PROOF HOOKS

Should be used where regular hooks corrode due to moisture, acid fumes, etc. Add $1.00 per box to above list prices on Nos. 2, 3 and 4. On Nos. 5 and 6 add $1.25 per box.

"Clipper" Twisted Rawhide and "Clipper" "Special" Pins

Each package contains 24 pins 12 inches long.

Size	Diameter	For	Price Per Package Special	Price Per Package Rawhide
No. 13	6/64 in.	very thin belts, Nos. 1, 2 and 3 Hooks	$0.70	$0.85
No. 12	7/64 in.	No. 4 Hooks	.70	.85
No. 11	8/64 in.	No. 5 Hooks	.70	.85
No. 10	9/64 in.	No. 5 Hooks	.80	.95
No. 9	10/64 in.	No. 6 Hooks	.90	1.05
No. 8	11/64 in.	No. 6 Hooks	1.00	1.15
No. 7	12/64 in.	heavy belts	1.20	1.45
No. 5	14/64 in.	heavy belts	1.60	2.00
Assorted sizes (Nos. 8-13)			.75	.90

Guarantee

A *"Clipper"* Belt Lacing machine is an investment —not an expense. It is sold to belting users on thirty days' free trial. Materials and workmanship fully guaranteed.

All prices listed are in effect in U. S. A. and are subject to change without notice.

Clipper Belt Lacer Company - Grand Rapids, Mich.

Saves Material and Labor

Listed as "Standard" by the Underwriters Laboratories, the Rowell Bottom Pour Ladle eliminates accidents to Workmen when pouring metals. It is self-skimming—all metal pours from the bottom—always clean metal—no dirt—no dross—no loss of metals.

These are the outstanding reasons why plants everywhere are rapidly adopting Rowell Bottom Pour Ladles for pouring non-ferrous metals. It sells on sight, because it is a decided improvement over the old-style top pour ladles.

A large market awaits live dealers to make quick profits with the Rowell Bottom Pour Ladle. *Sold only through distributors.* Let us send you complete details of our cooperation and confidential terms to distributors.

ROWELL MANUFACTURING COMPANY, Appleton, Wisconsin

ROWELL

LISTED AS STANDARD BY THE UNDERWRITERS LABORATORIES

LADDERS, SAFETY.

Dayton Safety Ladder Co., The, Cincinnati, O.
Patent Scaffolding Co., Chicago, Ill.

LADDERS, TRAVELING OR ROLLING.

Ideal—Success Furniture Corp., St. Louis, Mo.
Milbradt Mfg. Co., St. Louis, Mo.
Myers, F. E., & Bro. Co., Ashland, O.
Reliable—Allith-Prouty Co., Danville, Ill.

LADLES, METAL MELTING, SKIMMING AND POURING.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American Saw & Tool Works, Chicago.
American Scale Co., Kansas City, Mo.
Bernz, Otto, Co., Newark, N. J.
Clayton & Lambert Mfg. Co., Detroit, Mich.
Columbiana Boiler Co., Columbiana, O.
Devlin Mfg. Co., Thos., Philadelphia, Pa.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Hollands—Hollands Mfg. Co., Erie, Pa.
Eberhard Mfg. Co., The, Cleveland, O.
Everhot Mfg. Co., Maywood, Ill.
Indiana Foundry Co., Indiana, Pa.
Irvington Mfg. Co., Irvington, N. J
Johnson, Wm., Firm of, Newark, N. J. (Plumbers').
Knapp Mfg. & Supply Co., New York, N. Y.
L. & G.—Lalance & Grosjean Mfg. Co., New York
Littleford Bros., Cincinnati, O.
M. I. W.—Modern Iron Works, Quincy, Ill.
McCormick, J. S., Co., Pittsburgh, Pa.
Mullins Body Corp., Stamping Dept. A, Salem, O.
Munroe & Sons Mfg. Corp., R., Pittsburgh, Pa.
National Tool Co., New York, N. Y.
Neway (bottom pour)—Rowell Mfg. Co., Appleton, Wis.
Nor-Bro—Norris Brothers, Inc., Robinson, Ill.
Obermayer, S. Co., The, Cincinnati, Ohio.
Osborn Mfg. Co., Cleveland, O.
Paxson, J. W., Co., Philadelphia, Pa.
Pollard, Jos. G., Co., Inc., Brooklyn, N. Y.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Riter-Conley Co., Pittsburgh, Pa.
Sayre, L. A., Company, Newark, N. J
Starbuck, R. M., & Sons, Hartford, Conn.
Stowell Company, The, South Milwaukee, Wis.
Trent, Harold E., Company, Philadelphia, Pa. (Electric).

LADLES, STEEL.

Columbiana Boiler Co., Columbiana, Ohio.
Lancaster Iron Works, Inc., Lancaster, Pa.
Mullins Body Corp., Stamping Dept. A, Salem, O.
McNeil, James & Bro., Co., Pittsburgh, Pa.
Pennsylvania Engineering Works, New Castle, Pa.

LAMPS, ACETYLENE, CAMPERS' AND SPORTSMEN'S.

Buckeye—The Macleod Co., Cincinnati, O.
Milburn—The Alexander Milburn Co., Baltimore, Md

LAMPS, ACETYLENE GAS.

Buckeye—The Macleod Co., Cincinnati, O.
Milburn—The Alexander Milburn Co., Baltimore, Md.
Simmons Co., John, New York, N. Y.
Wolf—Wolf Safety Lamp Co. of America, Inc. Brooklyn, N. Y.

LAMPS, BRAZING.

Atkins—E. C. Atkins & Co., Indianapolis, Ind.

LAMPS, ELECTRIC PORTABLE AND EXTENSION.

American Fixture Co., Milwaukee, Wis.
Cincinnati Specialty Mfg. Co., Inc., Cincinnati, O.
Reelite—Appleton Electric Co., Chicago, Ill.
White—The O. C. White Co., Worcester, Mass.

LAMPS, ELECTRIC, THEFT PROOF.

Kulp Theft Proof—Kulp Theft Proof Lamp Co., Chicago, Ill. (See advertisement page 196.)

LAMPS, ENGINE ROOM.

Defiance Lantern & Stamping Corp., Rochester, N. Y.

LAMPS, ENGINEERS' HAND.

Deverall's—Deverall Perfection Mfg. Co., Brooklyn N. Y.
Eagle Mfg. Co., Wellsburg, W. Va.
Knapp Mfg. & Supply Co., New York, N. Y.
Malleable Iron Fittings Co., Branford, Conn.
Milburn, Alexander, Co., The, Baltimore, Md.
National Marine Lamp Co., Forestville, Conn.
Walters Mfg. Co., Pittsburgh, Pa.

NO MORE STOLEN LAMPS!

Edison, National and Westinghouse Mazda Bulbs NOW Supplied with Kulp Theft-Proof Base!

With the theft of lamps amounting to between 12% and 30% of all lamps bought by many large users, Edison, National or Westinghouse lamps with the Kulp Theft-Proof Base save hundreds of thousands of dollars annually. Once screwed into a socket they **cannot** be removed during the life of the lamp, or till bulb is broken to permit removal. They save the cost of stolen lamps, render 100% service during the full life of the bulb, reduce hazard and increase safety. Theft-proof feature is built into base. Requires no change of sockets, fixtures or wiring. Edison, National or Westinghouse lamps with Kulp Theft-Proof Bases can be had on present lamp contracts. Indispensable for factories, foundries, mills, shops, railroads—wherever exposed sockets exist. Ask for descriptive literature!

A few of the Users:

Standard Oil Co.
International Harvester
General Motors
Commonwealth Edison
Pullman Company
Bethlehem Steel
American Tobacco
Anaconda Copper
N. Y. Central Ry.
U. S. Gypsum
H. J. Heinz
Ford Motor Co.
American Can
And hundreds of others.

Kulp Theft-Proof Lamp Co.

360 No. Michigan Ave. CHICAGO, ILL.

LAMPS, MINERS' SAFETY.

American Bull Dog—Harker Mfg. Co., Cincinnati, Ohio (Carbide).
Anton Carbide, Anton Oil—Geo. Anton & Bro., Monongahela, Pa.
American Safety Lamp & Mine Supply Co., Scranton, Pa. (Trade names—Beard Deputy-Clanny, Cremer, Davy, Vesta.)
Baldwin—John Simmons Co., New York, N. Y.
Eagle, Globe, Star—Anton, Geo., & Bro., Monongahela, Pa.
Edison Electric—Mine Safety Appliances Co., Pittsburgh, Pa.
Grier Brothers Co., The, Pittsburgh, Pa. (carbide).
Harker Mfg. Co., Cincinnati, O. "Brite-Lite."
Hughes Bros., Scranton, Pa.
Justrite Mfg. Co., Chicago, Ill.
Koehler, Wheat—Koehler Mfg. Co., Marlboro, Mass. (electric).
Milburn—Alexander Milburn Co., The, Baltimore, Md.
Shanklin Mfg. Co., Springfield, Ill.
Standard Oil Co. of New York, New York, N. Y.
Wolf Type—Wolf Safety Lamp Co. of America, Inc., Brooklyn, N. Y.

LAMPS, SAW BRAZING.

Vulcan—Samuel C. Rogers & Co., Buffalo, N. Y.

LAMPS, SIGNAL, RAILWAY.

Handlan—Handlan-Buck Mfg. Co., St. Louis, Mo.

LAMPS, THEFT PROOF, ELECTRIC.

Kulp Theft Proof Lamp Co., Chicago, Ill.

LAMPS, WATER GAUGE.

Johnson Mfg. Co., The, Urbana, O.
Knapp Mfg. & Supply Co., New York, N. Y.

LANTERNS.

Defiance Lantern & Stamping Corp., Rochester, N. Y. "Defiance," "Perfect," "Triumph."
Dietz, R. E., Co., New York, N. Y. (hand driving, mill, railroad, fire dept.). "Dietz."
Embury Mfg. Co., Warsaw, N. Y. "Supreme."
Handlan—Handlan-Buck Mfg. Co., St. Louis, Mo.
National Marine Lamp Co., Forestville, Conn.
Pirsch, Peter, & Sons Co., Kenosha, Wis.
Safety Fire Extinguisher Co., The, New York, N. Y.

LANTERNS, ELECTRIC, DRY BATTERY.

Economy Electric Lantern Co., Chicago, Ill. "Eco-Lite."
Excellight—The National Marine Lamp Co., Forestville, Conn.
Federal—Federal Electric Co., Chicago, Ill.
Handlan—Handlan-Buck Mfg. Co., St. Louis, Mo.
Larkin Mfg. Co., Dayton, O.
LaFrance—American-LaFrance Fire Engine Co., Inc., Elmira, N. Y.
Protecto—The Protecto Safety Appliance Co., Newark, N. J.

LARRIES, COAL WEIGHING, FOR STOKERS.

Beaumont, R. H., Co., Philadelphia, Pa.
Link-Belt Co., Chicago and Philadelphia.
Scottdale—Scottdale Machine & Mfg. Co., Scottdale Pa.
Specialty Engineering Co., Philadelphia, Pa.

LATCHES, BOILER DOOR, SAFETY.

De Waters Safety Latch Co., Inc., New York, N. Y.

LATCHES, CLOSET DOOR.

Columbus Brass Co., Columbus, O.

LATERALS, PIPE, STEAM.

N. T. C.—National Tube Co., Pittsburgh, Pa.,

LATH, EXPANDED METAL.

Berloy—The Berger Mfg. Co., Canton, O.
Buffalo—Buffalo Wire Works Co., Inc., Buffalo, N. Y.
Michigan Wire Cloth Co., Detroit, Mich.
Steelcrete—The Consolidated Expanded Metal Companies, Chicago, Ill.
Youngstown Pressed Steel Co., Warren, O.

LATHES, AXLE TURNING.

Lodge & Shipley Machine Tool Co., Cincinnati, O.
Niles-Bement-Pond Co., New York, N. Y.
Putnam—Manning, Maxwell & Moore, Inc., New York, N. Y.
Sellers & Co., Inc., Wm., Philadelphia, Pa.

LATHES, BENCH.

Ames, B. C., & Co., Waltham, Mass. "Ames."
Builders Iron Foundry, Providence, R. I.
Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Champion—Champion Blower & Forge Co., Lancaster, Pa.
Cleveland Automatic Machine Co., Cleveland, O.
Electro-Magnetic Tool Co., Chicago, Ill.
Elgin, The, Tool Works, Elgin, Ill. "Elgin."
Emerson Electric Mfg. Co., The, St. Louis, Mo.
F. M. C.—Flather Mfg. Co., The, Nashua, N. H.
Goodell-Pratt Co., Greenfield, Mass. (small).
Hardinge Bros., Inc., Chicago, Ill. "Cataract."
Hjorth Lathe & Tool Co., Boston, Mass. "Hjorth."
Leiman Bros., New York, N. Y.
Meriden Machine Tool Co., The, Meriden, Conn. (glass engravers).
Moseley Lathe Co., The, Elgin, Ill.
Oliver Mfg. Co., The W. W., Buffalo, N. Y.
Rivett Lathe & Grinder Corporation, Brighton, District of Boston, Mass.
Sloan & Chace—The Rice Machine Tool Corp., Newark, N. J.
South Bend Lathe Works, South Bend, Ind.
Stark Tool Co., Waltham, Mass.
Triplex—Triplex Machine Tool Corp., New York N. Y.
Up-to-Date Tool Co., Waltham, Mass.
Van Norman Machine Tool Co., Springfield, Mass.
Wade-American Tool Co., Waltham, Mass.
Wallace, J. D., & Co., Chicago, Ill.
Wells—Greenfield Tap & Die Corp., Greenfield, Mass.
Wright, David A., Chicago, Ill. (Trade names—Fifield, Wright.)

LATHES, BOLT AND STUD.

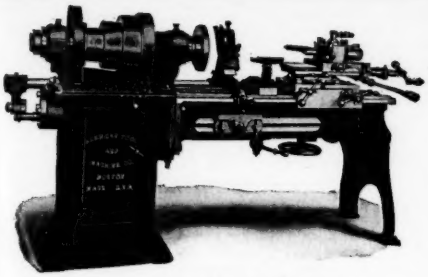
(See "Machines, Bolt, Nut and Rivet.")
Pryibil, P., Machine Co., New York, N. Y.

LATHES, BRASS FINISHERS'.

Cincinnati Acme Machine Tool Co., Cincinnati, O. "Acme."
Fox—American Tool & Machine Co., Boston, Mass.
Grabo, E. O., Machine Works, Inc., New York, N. Y.
Springfield Machine Tool Co., Springfield, O.
Warner & Swasey Co., The, Cleveland, O.
Wood Turret Machine Co., Brazil, Ind.

LATHES, BUFFING AND POLISHING.

American Tool & Machine Co., Boston, Mass.
Blount Co., J. G., Everett, Wash.
Clizbe Bros. Mfg. Co., Plymouth ,Ind. "Clizbe."
Columbia Mfg. Co., Belleville, Ill.
Emerson Electric Mfg. Co., St. Louis, Mo. (small).



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AMERICAN TOOL & MACHINE CO.

Trade Mark Registered U. S. Patent Office.
BOSTON

Gardner Machine Co., Beloit, Wis.
Glow—The Glow Electric Co., Cincinnati, O.
Goodell-Pratt Co., Greenfield, Mass.
Hammond Mfg. Co., Cleveland, O.
Hill-Curtis Co., Kalamazoo, Mich.
Hisey-Wolf Machine Co., Cincinnati, O.
Leiman Bros., New York, N. Y.
Meriden Press & Drop Co., Meriden, Conn.
New Britain Machine Co., The, New Britain, Conn. "New Britain."
Optimus, Acme—A. P. Munning & Co., Matawan, N. J.
Safety First—C. L. Hawes, Ashtabula, O.
Springfield Mfg. Co., The, Bridgeport, Conn.
Standard Electrical Tool Co., The, Cincinnati, Ohio.
Tanite Co., The, Stroudsburg, Pa.

LATHES, CAM TURNING.

Melling—Walcott Lathe Co., Jackson, Mich.

LATHES, CHASING BAR.

Rivett Lathe & Grinder Corp., Brighton Dist. of Boston, Mass.

LATHES, CHUCKING.

Fay—Jones & Lamson Machine Co., Springfield, Vt.
Gisholt Machine Co., Madison, Wis. (Trade names—Gisholt, Simplimatic (automatic and semi-automatic).)
Goss & De Leeuw Machine Co., New Britain, Conn.
LeBlond Machine Tool Co., R. K., Cincinnati, O.
Potter & Johnston Co., Pawtucket, R. I.
Reed-Prentice Corp., Worcester, Mass.
Tilted Turret—Wood Turret Machine Co., Brazil, Ind.

LATHES, COMBINATION, METAL AND WOOD.

Little Giant Company, Mankato, Minn.

LATHES, CONE PULLEY.

Flather & Co., Inc., Nashua, N. H.
Reed-Prentice Corp., Worcester, Mass. "Reed."

LATHES, DRILLING.

American Tool & Machine Co., Boston, Mass.
Diamond Machine Co., Providence, R. I.
Reed-Prentice Corp., Worcester, Mass.

LATHES, CRANK SHAFT.

Boye & Emmes Machine Tool Co., Cincinnati, O.
Le Blond—R. K. Le Blond Machine Tool Co., Cincinnati, O.
Lodge & Shipley Machine Tool Co., Cincinnati, O.
Manning, Maxwell & Moore, Inc., New York, N. Y.
Niles-Bement-Bond Co., New York, N. Y.

LATHES, ENGINE.

All Geared—Barnes Drill Co., Inc., Rockford, Ill.
American Tool Works Co., Cincinnati, O.
Axelson—Axelson Machine Co., Los Angeles, Cal.
Barker, Wm., & Co., Covington, Ky.
Barnes Co., W. F. & John, Rockford, Ill.
Boye & Emmes Machine Tool Co., Cincinnati, O.
Bradford—The Bradford Machine Tool Co., Cincinnati, O.
C. & J.—Carroll & Jamieson Machine Tool Co., Batavia, O.
Carroll, A. V., Machine Tool Co., Cincinnati, O.
Champion Tool Works, Cincinnati, O. "Champion."
Chard—Chard Lathe Co., Newcastle, Ind.
Cisco Machine Tool Co., Cincinnati, O.
Cincinnati Lathe & Tool Co., The, Cincinnati, O.
Cleveland Lathe & Machinery Co., Cleveland, O.
Cone Automatic Machine Co., Inc., Windsor, Vt.
Dalton Tool Corp., New York, N. Y.
Economy—Rockford Lathe & Drill Co., Rockford, Ill.
Elyria Machine Co., Elyria, Ohio.
E. B. M.—Hendey Machine Co., Torrington, Conn.
Fay & Scott, Dexter, Me.
Gem—Kiddie's Machine Tool Works, Kinsman, O.
Giddings & Lewis Machine Tool Co., Fond du Lac, Wis.
Globe—Globe Machinery & Supply Co., Des Moines, Iowa.
Grammes, L. F., & Sons, Allentown, Pa.
Greaves-Klusman Tool Co., Cincinnati, O.
Harrington Company, Philadelphia, Pa.
Hercules—Hercules Machine & Tool Co., Inc., New York.
Hullhorst Micro Tool Co., Toledo, O.
Johnson, I. H., Jr., Co., Inc., Philadelphia, Pa.
Lancaster—Champion Blower & Forge Co., Lancaster, Pa.
LeBlond Machine Tool Co., R. K., Cincinnati, O.
Lehmann Machine Co., St. Louis, Mo.
Little Giant—Little Giant Co., Mankato, Minn.
Lodge & Shipley Machine Tool Co., Cincinnati, O.
McCabe, J. J., Lathe & Machinery Corp., New York, N. Y.
Master Machine Tool Co., New York, N. Y. "Master."
Monarch Industries, Inc., Elkhart, Ind.
Monarch—Monarch Machine Tool Co., Sidney, O.
Morris—Morris Machine Tool Co., Cincinnati, O.
Myers—Myers Machine Tool Corp., Columbia, Pa.
New Haven—Driggs Ordnance & Mfg. Corp., New York, N. Y.
New Shepard, Sterling—Shepard Lathe Co., Rising Sun, Ind.
Niles-Bement-Pond Co., New York, N. Y.
Pittsburgh Machine Tool Co., Braddock, Pa.
Porter-Cable Machine Co., Syracuse, N. Y.
Putnam—Manning, Maxwell & Moore, Inc., New York, N. Y.
Rahn-Larmon Co., The, Cincinnati, O.
Reed-Prentice Corp., Worcester, Mass. "Reed."
Robbins Machine Co., The, Worcester, Mass.
Rockford Drilling Machine Co., Rockford, Ill.
Ryerson-Conradson—Conradson Machine Tool Co., Green Bay, Wis.
San Francisco Engineering Co., San Francisco, Cal.
Sebastian Lathe Co., Cincinnati, O.
Sellers & Co., Inc., Wm., Philadelphia, Pa.
Seneca Falls Machine Co., Seneca Falls, N. Y. (Trade names—Lo-Swing, Star.)
Sidney Machine Tool Co., Sidney, O. "Famous."
South Bend Lathe Works, South Bend, Ind.
Springfield Machine Tool Co., The, Springfield, O.
Sundstrand Machine Tool Co., Rockford, Ill. "Sundstrand."
Union Lathe Works, The, York, Pa. "Union."
Walcott Lathe Co., Jackson, Mich.
Westlund, Carl G., Co., Worcester, Mass.
Worcester Lathe Co., Worcester, Mass.
Wright, David A., Chicago, Ill. (Trade names—Fifield, Wright.)

LATHES, EXTENSION GAP.

Barnes Drill Co., Rockford, Ill. "All Geared."
Fay & Scott, Dexter, Me.
Harrington Company, Philadelphia, Pa.
Johnson, I. H., Jr., Co., Philadelphia, Pa.
Niles-Bement-Pond Co., New York, N. Y.
Oliver Mfg. Co., W. W., Buffalo, N. Y.
Sellers, Wm., & Co., Inc., Philadelphia, Pa.

LATHES, FOOT POWER.

Barnes Co., W. F. & John, Rockford, Ill.
Carroll-Jamieson Machine Tool Co., The, Batavia, O.
Grammes, L. F., & Sons, Allentown, Pa.

Niles-Bement-Pond Co., New York, N. Y.
Star—Seneca Falls Machine Co., Seneca Falls, N. Y.
Shepard Lathe Co., Rising Sun, Ind.

LATHES, GAP.

Artisan—Artisan Mfg. Co., Cincinnati, O.
Cincinnati Lathe & Tool Co., The, Cincinnati, O.
Putnam—Manning, Maxwell & Moore, Inc., New York, N. Y.
Rahn-Larmon Co., The, Cincinnati, O.
Simplex Machine Tool Co., Cleveland, O.
South Bend Lathe Works, South Bend, Ind.

LATHES, GARAGE.

Dalton Combination—Dalton Tool Corp., New York, N. Y.
Rahn-Larmon Co., The, Cincinnati, O.
Reed-Prentice Corp., Worcester, Mass. "Reed."
South Bend Lathe Works, South Bend, Ind.

LATHES, GEARED HEAD.

Bradford Machine Tool Co., The, Cincinnati, Ohio.
Cincinnati Lathe & Tool Co., The, Cincinnati, O.
Cisco Machine Tool Co., The, Cincinnati, O.
Reed-Prentice Corp., Worcester, Mass.
Sundstrand Machine Tool Co., Rockford, Ill. (Portable). "Sundstrand."

LATHES, GEAR, QUICK CHANGE.

Cincinnati Lathe & Tool Co., The, Cincinnati, O.
Economy—Rockford Lathe & Drill Co., Rockford, Ill.
Hendey—The Hendey Machine Co., Torrington, Conn.
Le Blond, R. K., Machine Tool Co., Cincinnati, O.
Monarch—Monarch Machine Tool Co., Sidney, O.
Putnam—Manning, Maxwell & Moore, Inc., New York, N. Y.
Reed-Prentice Corp., Worcester, Mass.

LATHES, GUN BORING AND TURNING.

Bethlehem Steel Co., Bethlehem, Pa.
Johnson, I. H., Jr., Co., Philadelphia, Pa.

LATHES, HAND.

Brown & Sharpe Mfg. Co., Providence, R. I.
Rivett Lathe & Grinder Co., Brighton, District of Boston, Mass.
Seneca Falls Machine Co., Seneca Falls, N. Y.

LATHES, INGOT SLICING.

Bethlehem Steel Co., Bethlehem, Pa.

LATHES, LABORATORY.

Cincinnati Lathe & Tool Co., The, Cincinnati, O.
O. K.—Marathon Electric Mfg. Co., Wausau, Wis.

LATHES, MANUAL TRAINING.

Greenfield Tap & Die Corp., Greenfield, Mass.
South Bend Lathe Works, South Bend, Ind.

LATHES, METAL SPINNING.

Adriance Machine Works, Inc., Brooklyn, N. Y.
Bliss, E. W., & Co., Brooklyn, N. Y.
Grabo, E. O., Machine Works, Inc., New York, N. Y.
Little Giant Co., Mankato, Minn.
Meriden Machine Tool Co., The, Meriden, Conn.
Pryibil, P., Machine Co., Inc., New York, N. Y.
Toledo Machine & Tool Co., Toledo, O.

LATHES, PRECISION.

Ames, B. C., & Co., Waltham, Mass.
Cataract—Hardinge Bros., Inc., Chicago, Ill.
Elgin Tool Works, Elgin, Ill.
Goodell-Pratt Co., Greenfield, Mass.
Rivett Lathe & Grinder Corporation, Brighton, District of Boston, Mass.
Stark Tool Co., Waltham, Mass.
Wade-American Tool Co., The, Waltham, Mass.

LATHES, PRODUCTION.

Cincinnati Lathe & Tool Co., The, Cincinnati, O.
Cisco Machine Tool Co., The, Cincinnati, O.
Greenlee Bros. & Co., Rockford, Ill. "Greenlee."
Porter-Cable Machine Co., Syracuse, N. Y.
Reed-Prentice Corp., Worcester, Mass.
Rockford—Rockford Machine Tool Co., Rockford, Ill.
Short Cut—Seneca Falls Machine Co., Seneca Falls, N. Y.
Sundstrand Machine Tool Co., Rockford, Ill. "Sundstrand."

LATHES, PULLEY TURNING.

Avey Drilling Machine Co., The, Covington, Ky. "Cincinnati."

LATHES, ROLL.

The Youngstown Foundry & Machine Co., Youngstown, O.

LATHES, SCREW-CUTTING.

All Geared—Barnes Drill Co., Rockford, Ill.
Automatic Machine Co., Bridgeport, Conn.
Barnes—W. F. & John Barnes Co., Rockford, Ill.
Cincinnati Lathe & Tool Co., The, Cincinnati, O.
Lancaster—The Champion Blower & Forge Co., Lancaster, Pa.
New Shepard, Sterling—Shepard Lathe Co., Rising Sun, Ind.
Rivett Lathe & Grinder Co., Brighton, District of Boston, Mass.
South Bend Lathe Works, South Bend, Ind.
Star—Seneca Falls Machine Co., Seneca Falls, N. Y.

LATHES, SPEED.

American Tool & Machine Co., Boston, Mass.
Blount, J. G., Co., Everett, Mass.
Builders' Iron Foundry, Providence, R. I.
Cincinnati Lathe & Tool Co., The, Cincinnati, O.
Diamond Machine Co., The, Providence, R. I.
Grabo, E. O., Machine Works, Inc., New York, N. Y.
Grammes, L. F., & Sons, Allentown, Pa.
Grant Mfg. & Machine Co., Bridgeport, Conn.
Johnson, I. H., Jr., Co., Inc., Philadelphia, Pa.
LeBlond Machine Tool Co., Cincinnati, O.
Leiman Bros., New York, N. Y.
Niles-Bement-Pond Co., New York, N. Y.
Reed-Prentice Corp., Worcester, Mass. "Reed."
Standard Elec. Tool Co., The, Cincinnati, Ohio.
United States Electrical Tool Co., The, Cincinnati, O.
Wells—Greenfield Tap & Die Corp., Greenfield, Mass.

LATHES, SQUARE ARBOR.

American Tool Works Co., Cincinnati, O.
American Tool & Machine Co., Boston, Mass.
Seneca Falls—Seneca Falls Machine Co., Seneca Falls, N. Y.

LATHES, TOOL ROOM.

Cincinnati Lathe & Tool Co., The, Cincinnati, O.
Cisco Machine Tool Co., Cincinnati, O.
Lodge & Shipley Machine Tool Co., Cincinnati, O.
Porter-Cable Machine Co., Syracuse, N. Y.
Reed-Prentice Corp., Worcester, Mass. "Reed."
South Bend Lathe Works, South Bend, Ind.
Star—Seneca Falls Machine Co., Seneca Falls, N. Y.
Sundstrand Machine Tool Co., Rockford, Ill. "Sundstrand."
Walcott Lathe Co., Jackson, Mich.

LATHES, TURRET.

Acme Machine Tool Co., The, Cincinnati, O. "Cincinnati Acme."
American Tool & Machine Co., Boston, Mass.
American Tool Works Co., Cincinnati, O.
Baird Machine Co., Bridgeport, Conn.
Bardons & Oliver, Cleveland, O.
Cincinnati Lathe & Tool Co., The, Cincinnati, O.
Cleveland Automatic Machine Co., Cleveland, O.
Colburn Machine Tool Co., Cleveland, O.
Defiance Machine Works, Defiance, Ohio.
Dreses Machine Tool Co., Cincinnati, O.
Fay & Scott, Dexter, Me.
Greenlee Bros. & Co., Rockford, Ill.
Gisholt Machine Co., Madison, Wis.
Hartness, Fay—Jones & Lamson Machine Co., Springfield, Vt.
Hercules Machine & Tool Co., Inc., New York, N. Y. "Hercules."
Johnson, I. H., Jr., Co., Inc., Philadelphia, Pa.
King Machine Tool Co., The, Cincinnati, O.
Le Blond—R. K. Le Blond Machine Tool Co., Cincinnati.
Libby—The International Machine Tool Co., Indianapolis, Ind.
Lodge & Shipley Machine Tool Co., Cincinnati, O
McDonough Mfg. Co., Eau Claire, Wis.
Maxwell Products Co., The, Cleveland, O. "M-P."
Monarch Industries, Inc., Elkhart, Ind.
Meriden Machine Tool Co., The, Meriden, Conn
National Acme Co., The, Cleveland, O. "Gridley."
New Britain Machine Co., New Britain, Conn.
Niles-Bement-Pond Co., New York, N. Y.
Potter & Johnston Machine Co., Pawtucket, R. I.
Rahn-Larmon Co., The, Cincinnati, O. "Rahn."
Reading Automatic Machine Co., Reading, Pa. "Jackson."
Reed-Prentice Corp., Worcester, Mass.
Rogers Machine Tool Co., Inc., Alfred, N. Y. (vertical)
Ryerson-Conradson—Conradson Machine Tool Co., Green Bay, Wis.
Seneca Falls Machine Co., Seneca Falls, N. Y.
Simpl—Allen & Curtiss Co., Mishawaka, Ind.
Springfield Machine Tool Co., The, Springfield, O
Stark Tool Co., Waltham, Mass.
Steinle Turret Machine Co., Madison, Wis.
Tilted Turret—Wood Turret Machine Co., Brazil, Ind.
Vert-Au-Matics—The Bullard Machine Tool Co., Bridgeport, Conn.
Warner & Swasey Co., The, Cleveland, O.

LATHES, UNIVERSAL, HOLLOW, HEXAGON.

Greenfield Tap & Die Corp., Greenfield, Mass.
Partridge—E. O. Partridge, Chicago, Ill.
Warner & Swasey Co., Cleveland, O.

LATHES, WOOD TURNING.

American Saw Mill Mach'y Co., Hackettstown, N. J.
Baird Machine Co., The, Bridgeport, Conn.
Barnes, W. F. & John, Co., Rockford, Ill.
Boice-Crane—W. B. & J. E. Boice, Toledo, O.
Do-All Appliance Co., Chicago, Ill. "Do-All."
Empire Machine Works, Mt. Morris, N. Y.
Estes, E. B., & Sons, New York, N. Y.
Goodell, Companion—Millers Falls Co., Millers Falls, Mass.
Goodspeed Machine Co., Winchendon, Mass.
Greenfield Tap & Die Co., Greenfield, Mass.
Imperial—Imperial Metal Products Co., Grand Rapids, Mich.
Jones—Huntsville Foundry & Machine Co., Huntsville, Ala.
Kline, Lewis T., Alpena, Mich.
Klotz Machine Co., Sandusky, O.
Little Giant—Little Giant Co., Mankato, Minn.
Mattison Machine Works, Rockford, Ill.
Noble Machine Co., Ft. Wayne, Ind.
Partridge—E. O. Partridge, Chicago, Ill.
Pringle & Brodie Machinery Co., Chicago, Ill.
Sanders—Ober Mfg. Co., Chagrin Falls, O. (handle and spoke).
South Bend Lathe Works, South Bend, Ind.
Standard—Lewis R. Ripley, Harvard, Mass.
Star—Seneca Falls Machine Co., Seneca Falls, N. Y.
Trevor Mfg. Co., Lockport, N. Y.
Wallace—J. D. Wallace & Co., Chicago, Ill.
Waymoth—A. D. Waymoth & Co., Fitchburg, Mass.

LATHES, WRAPPING.

Allen Machine Co., Erie, Pa.

LATRINES AND CLOSETS.

American Foundry & Furnace Co., Bloomington, Ill.
Crane Co., Chicago, Ill.
Ebco—D. A. Ebinger Sanitary Mfg. Co., Columbus, O.
National—P. H. MaGirl Foundry & Furnace Works, Bloomington, Ill.
Nelson, N. O., Mfg. Co., St. Louis, Mo.
Mott, J. L., Iron Works, Trenton, N. J. (Trade names—Privus, Solus.)
Sanitas Mfg. Co., Boston, Mass.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.

LAVATORIES, BARBERS'.

Camden Pottery Co., Camden, N. J.
Conemaugh Iron Works, Latrobe, Pa.
Crane Co., Chicago, Ill.
Ebinger, D. A., Sanitary Mfg. Co., Columbus, O.
Eljer Co., Ford City, Pa.
Ford's Porcelain Works, Perth Amboy, N. J.
Iron City Sanitary Mfg. Co., Pittsburgh, Pa.
Kohler Co., Kohler, Wis. (Trade names—Beaufort, Bennett, Fenmore, Tonsor.)
Kokomo Sanitary Pottery Co., Kokomo, Ind.
Maddock's, Thos., Sons Co., Trenton, N. J.
Monument Pottery Co., Trenton, N. J.
Mott, J. L., Iron Works, Trenton, N. J.
National Sanitary Co., Salem, O.
Nelson, N. O., Mfg. Co., St. Louis, Mo.
Richmond Radiator Co., New York, N. Y.
Standard Sanitary Mfg. Co., Pittsburgh, Pa. "Blackford," "Duo," "Merlan," "Rockford."
Tepeco—Trenton Potteries Co., Trenton, N. J.
Union Sanitary Works, Noblesville, Ind.
United States Sanitary Mfg. Co., Pittsburgh, Pa.
Washington Iron Works, Los Angeles, Cal.
Wheeling Sanitary Mfg. Co., Wheeling, W. Va.
White Beauty—Humphryes Mfg. Co., Mansfield, O.
Wolff Mfg. Corp., Chicago, Ill.

LAVATORIES, BATTERY.

Eljer Co., Ford City, Pa.
Ford's Porcelain Works, Perth Amboy, N. J.
Iron City Sanitary Mfg. Co., Pittsburgh, Pa.
Kohler Co., Kohler, Wis.
Maddock's, Thos., Sons Co., Trenton, N. J.
Manufacturing Equipment & Engineering Co., Framingham, Mass. "Meeco."
Tepeco—Trenton Potteries Co., Trenton, N. J.
Weiskittel, A., & Son Co., Baltimore, Md.

LAVATORIES, CONCEALED.

Invisibowl—Invisibowl Corp., Chicago, Ill.

LAVATORIES, DENTAL.

Crane Co., Chicago, Ill.
Kohler Co., Kohler, Wis.
Madenta—Thos. Maddock's Sons Co., Trenton, N. J.
Mott, J. L., Iron Works, Trenton, N. J. (Trade names—Altoona, Bedford, Crescent, Norwalk, Tremont.)
Sesco—Sanitary Earthenware Specialty Co., Trenton, N. J.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Trenton Potteries Co., Trenton, N. J.
Wheeling Sanitary Mfg. Co., Wheeling, W. Va.

LAVATORIES, HOSPITAL.

Avon—Wheeling Sanitary Mfg. Co., Wheeling, W. Va.
Camden Pottery Co., Camden, N. J.
Crane Co., Chicago, Ill.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Humphryes Mfg. Co., The, Mansfield, O.
Meyer-Sniffen Co., The, New York, N. Y.
Monument Pottery Co., Trenton, N. J.
Mott, J. L., Iron Works, Trenton, N. J.
Rundle-Spence Mfg. Co., Milwaukee, Wis.
Sanitas Mfg. Co., Boston, Mass.
Tepeco—Trenton Potteries Co., The, Trenton, N. J.
Wolff Mfg. Corp., Chicago, Ill.

LAVATORIES, MANICURE.

Crane Co., Chicago, Ill.
Douglas, John, Co., Cincinnati, O.
Iron City Sanitary Mfg. Co., Pittsburgh, Pa.
Maddock's, Thos., Sons Co., Trenton, N. J.
Mott, J. L., Iron Works, Trenton, N. J. (Trade names—Arden, Ardmore, Norma, Newport.)
Sesco—Sanitary Earthenware Specialty Co., Trenton, N. J.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Tepeco—Trenton Potteries Co., Trenton, N. J.

LAVATORIES, MARBLE TOP.

Clow, James B., & Sons, Chicago, Ill. (Trade names—Agate, Colonial, Marmol, Renaissance.)
Crane Co., Chicago, Ill.
Federal-Huber Co., Chicago, Ill.
Jenkins Mfg. Co., Inc., Bloomfield, N. J. (Trade names—Brookville, Denmark, Dorchester, Dover, Duovia.)
Meyer-Sniffen Co., The, New York, N. Y.
Peck Bros. & Co., New Haven, Conn. (Trade names—Concord, Eclipse, Lenox, Newport, Tremont, Yankee.)
Renaissance—Mott, J. L., Iron Works, Trenton, N. J.
Sanitas Mfg. Co., Boston, Mass. (Trade names—Sanitas, Crescent, Crown, Easton, Empire, Hanover, Premier.)
Wolff Mfg. Corp., Chicago, Ill.

LAVATORIES, PORCELAIN.

Angola—Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Capoco—Camden Pottery Co., Camden, N. J.
Crane Co., Chicago, Ill. (Trade names—Coloma, Coptic, Coronet, Empress, Iadlia, Plymouth, Vernon.)
Dececo Co., The, Boston, Mass.
Eljer Co., Ford City, Pa. (Trade names—Arcadia, Montclair.)
Eureka—Cochran, Drugan & Co., Trenton, N. J.
Ford's Porcelain Works, Perth Amboy, N. J.
General Ceramics Co., New York, N. Y. "Phoenix."
Monument Pottery Co., Trenton, N. J.
Mott, J. L., Iron Works, Trenton, N. J. (Trade names—Altoona, Claremont, Clinton, Marsden, Norwalk, Nouveau, Valando, Volney, Vulcan, Valcour.
Peck Bros. & Co., New Haven, Conn. (Trade names—Adelphi, Albemarle, Arcadia, Belvedere, Berkeley, Bryant, Cambridge, Chester, Manhattan, Rococo, Strathmore, Waldorf.)
Tepeco—The Trenton Potteries Co., Trenton, N. J.
Wheeling Sanitary Mfg. Co., Wheeling, W. Va.
Wolff Mfg. Corp., Chicago, Ill. (Trade names—Astoria, Norfolk, Pacific, Terminal, Bellevue.)
Woodbridge—Woodbridge Ceramic Corp., Woodbridge, N. J.

LAVATORIES, PORCELAIN ENAMELED.

Barnes Mfg. Co., Mansfield, O.
Conemaugh Iron Works, Latrobe, Pa.
Crane Co., The, Chicago, Ill. (Trade names—Ardmore, Avola, Berkshire, Boylston, Cambridge, Canton, Cecil, Chatham, Closin, Coptic, Crescent, Dayton, Eaton, Fairfax, Harrow, Kent, Nevada, Norfolk, Nutley, Oakley, Regent, Rococo, Royal, Rugby, Savoy, Shandon, Stafford, Wilton.)
Crane Enamelware Co., Chattanooga, Tenn.
Dececo Co., The, Boston, Mass. (Trade names—Colonial, Dececo.)
Ebinger, D. A., Sanitary Mfg. Co., Columbus, O.
Federal-Huber Co., Chicago, Ill. (Trade names—Genesee, Osage, Oswego, Patapsco, Pawtucket, Sacramento, Sabin, Salmon, Santo, Scioto, Wisconsin.)
Humphryes Mfg. Co., The, Mansfield, O.
Iron City Sanitary Mfg. Co., Pittsburgh, Pa.
Jenkins Mfg. Co., Inc., Bloomfield, N. J. (Trade names—Etna, Princeton.)

Johnson, J. D. & Co., Inc., Philadelphia, Pa.
Jones Hollow Ware Co., Baltimore, Md.
Kohler Co., Kohler, Wis. (Trade names—Abury, Alco, Bevo, Bijou, Cecil, Clare, Kennedy, Kenneth, Midget, Moore, Osborne, Columbia, Filmore, Belmore, Stanmore, Emmet, Esmond, Bretton, Narobol, Staunton.)
Mott, J. L., Iron Works, The, Trenton, N. J. (Trade names—Balfour, Barclay, Belden, Bromley, Bulwer.)
National Sanitary Co., Salem, O.
Richmond Radiator Co., New York, N. Y.
Rundle Mfg. Co., Milwaukee, Wis.
Sanitas Mfg. Co., Boston, Mass. (Trade names—Crescent, Bristol, Caldwell, Arlington, Trinity, Premier, Mignon, Marlboro, Exeter, Faneuil, Grafton, Dartmouth, Beacon, Newbury, Standish, Easton, Winthrop.)
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Union Sanitary Works, Noblesville, Ind.
United States Sanitary Mfg. Co., Pittsburgh, Pa. (Trade names—Ajax, Alberta, Gothic.)
Verona—Peck Bros. & Co., New Haven, Conn.
Washington Iron Works, Los Angeles, Cal. (Trade names—Washington, Western.)
Weiskittel, A., & Son Co., Baltimore, Md.
White Beauty—Humphryes Mfg. Co., Mansfield, O.
Wolff Mfg. Corp., Chicago, Ill. (Trade names—Aberdeen, Alameda, Alpena, Argyle, Austin, Avon, Avondale, Clinton, Essex, Harrison, Jackson, Madison, Newton, Ohio, Afton, Norwood, Concord, Sheldon.)

LAVATORIES, PORTABLE.

Ro-San—Rowe Sanitary Mfg. Co., Detroit, Mich.

LAVATORIES, VITREOUS CHINA.

Abingdon Sanitary Mfg. Co., Abingdon, Ill.
Blackstone—Monument Pottery Co., Trenton, N. J.
Bloom Flusher Co., Tiffin, O.
Camden Pottery Co., Camden, N. J.
Crane Co., Chicago, Ill. (Trade names—Clermont, Dentus, Doric, Elegia, Idalia, Nova, Revere, Vernon.)
Chicago Pottery Co., Chicago, Ill. (Trade names—Vencedor, Lake Shore.)
Douglas, John Co., The, Cincinnati, O.
Ebinger, D. A., Sanitary Mfg. Co., Columbus, O.
Eljer Co., Ford City, Pa. (Trade names—Adrian, Alma, Ainslee, Bellaire, Blenheim, Buffalo, Beaumont, Comfort, Cunard, Euclid, Bridgeport, Detroit Elsinor, Guernville, Maywood, Morrison, Statler.)
Gasco—Federal-Huber Co., Chicago, Ill.
Haines, Jones & Cadbury Co., Philadelphia, Pa. (Trade names—Marion, Pallas, Vitreo.)
Johnson, J. D., Co., Philadelphia, Pa. (Trade names—Anaconda, Anglo, Arcady, Clotide, Columbia, Colonial, Concord, Crown, Dental, Dresden, Drexel, Druid, Dwight, Galen-Hall, Grotto, Harvard, Minerva, Nustile, Powelton, Primrose, Prudent, Purity, Ronjo, Rival, Samaritan, Saxon, Seeney, St. Denis, Terminal, Tonsorio, Vanity, Victor, Vigilant, Waterbury, Yale.)
Jenkins Mfg. Co., Inc., Bloomfield, N. J. (Trade names—Ashland, Aura, Beverly, Clinton, Iona, Kirkwood, Lakewood, Norton, Weymouth.)
Kalamazoo Sanitary Mfg. Co., Kalamazoo, Mich.
Kokomo Sanitary Pottery Co., Kokomo, Ind.
Maddock's, Thos., Sons Co., Trenton, N. J. (Trade names—Madalade, Madbury, Madorf, Madrid.)
Mott, J. L., Iron Works, Trenton, N. J. (Trade names—Altoona, Valando, Velasco, Valcour, Vermont, Vidal, Vassar, Veritas, Vega, Vernon, Victor, Villard, Vulcan, Valroy, Claremont.)
Peck Bros. & Co., The, New Haven, Conn. (Trade names—Baroness, Economy, Cambridge, Luxury, Oakwood, Greenwood, Edgewood, Glenwood, Manhattan, Rosevein, Lilliputian, Beaux, Wagner, Dutchess.)
Pierce, Butler & Pierce Mfg. Co., New York, N. Y. (Trade names—Pierce Biltmore, Bancroft, Belmont, Belleclaire, Bellevue, Barton, Hospital.)
Sanitas Mfg. Co., Boston, Mass. (Trade names—Arlington, Bristol, Caldwell, Exeter, Faneuil, Grafton, Dartmouth, Mignon, Trinity,)
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Sesco—The Sanitary Earthenware Specialty Co., Trenton, N. J.
Trenton Potteries Co., Trenton, N. J. (Trade names—Bellemeade, Impervio, Two Fired.)
Universal Sanitary Mfg. Co., New Castle, Pa.
West Coast Porcelain Mfrs., Millbrae, Cal.
Wolff Mfg. Corp., Chicago, Ill. (Trade names—Blackstone, Crown, Rialto, Varna, Vienna, Vendome, Viking, Virginia, Vannet, Valencia, Vedanta, Valona, Varella, Valletta, Velino, Valeria, Wolff.)

LEAD, ANTIMONIAL, BLOCK, RIBBON, WIRE.

Bigsby Metals Co., The, East Chicago, Ind.
Bunker Hill Brand—Northwest Lead Co., Seattle, Wash.
Eagle-Picher Lead Co., The, Cincinnati, O.
Lissberger, Marks & Son, Inc., Long Island City, N. Y.
Pittsburgh—Pennsylvania Smelting Co., Pittsburgh, Pa.
Union Smelting & Refining Co., Inc., Newark, N. J.

LEAD, CAULKING.

Bigsby Metals Co., The, East Chicago, Ind.
Bunker Hill Brand—Northwest Lead Co., Seattle, Wash.
Eagle-Picher Lead Co., The, Cincinnati, O.
Lissberger, Marks, & Son, Inc., Long Island City, N. Y.
National Lead Co., New York, N. Y.
Union Smelting & Refining Co., Newark, N. J.
United Lead Co., New York, N. Y.

LEAD, GLAZIERS'.

American Lead Co., Pittsburgh, Pa.
Bunker Hill Brand—Northwest Lead Co., Seattle, Wash.
Chadwick-Boston Lead Co., Boston, Mass.
Eagle-Picher Lead Co., The, Cincinnati, O.
Gardiner Metal Co., Chicago, Ill.
National Lead Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash.
Raymond Lead Works, Chicago, Ill.
Robertson Lead Co., James, Baltimore, Md.
Rochester Lead Works, Rochester, N. Y.
United Lead Co., New York, N. Y.
Windsor Mfg. Co., Milwaukee, Wis.

LEAD, PIG, BAR AND INGOT.

American Smelting & Refining Co., New York, N. Y.
Belmont Smelting & Refining Co., Brooklyn, N. Y.
Bigsby Metals Co., The, East Chicago, Ind.
Birkenstein, S. & Sons, Inc., Chicago, Ill.
Bunker Hill Brand—Northwest Lead Co., Seattle, Wash.
Brady Brass Co., Jersey City, N. J.
Canfield, M. C., Sons Co., Newark, N. J.
Charleston Lead Works, Charleston, S. C.
Columbia Smelting & Refining Works, New York, N. Y.
Detroit Lead Pipe Works, Detroit, Mich.
Detroit Metal Refining Co., Detroit, Mich.
Du Pont, E. I., de Nemours Powder Co., Wilmington, Del.
Eagle-Picher Lead Co., The, Cincinnati, O.
Eagle Smelting & Refining Works, New York.
Gilbert, A., & Sons Brass Foundry Co., St. Louis, Mo.
Illinois Smelting & Refining Co., Chicago, Ill.
Lehman Bros., Hoboken, N. J.
Lissberger, Marks, & Son, Inc., Long Island City, N. Y.
Michigan Smelting & Refining Co., Detroit, Mich.
National Lead Co., New York, N. Y.
North American Copper Co., New York, N. Y.
North American Smelting Co., Philadelphia, Pa.
Pittsburgh—Pennsylvania Smelting Co., Pittsburgh, Pa.
Raymond Lead Works, Chicago, Ill.
Richards & Co., Inc., Boston, Mass. (Remelted.)
Rochester Lead Works, Rochester, N. Y.
Sandoval—Sandoval Zinc Co., Chicago, Ill.
Standard Rolling Mills, Inc., Brooklyn, N. Y.
Standard Smelting & Refining Co., New York, N. Y.
Union Smelting & Refining Co., Newark, N. J.
United American Metals Corp., Brooklyn, N. Y.
United Lead Co., New York, N. Y.
U. S. A. Long Life—United Smelting & Aluminum Co., New Haven, Conn.
United States Reduction Co., East Chicago, Ind.
Wensley Metal Products Co., Denver, Colo.

LEAD, SHEET.

American Lead Co., Pittsburgh, Pa.
Bailey-Farrell Mfg. Co., Pittsburgh, Pa.
Blatchford, E. W., Co., Chicago, Ill.
Charleston Lead Works, The, Charleston, S. C.
Columbia Smelting & Refining Works, New York.
Detroit Lead Pipe Works, Detroit, Mich.
Eagle-Picher Lead Co., The, Cincinnati, O.
Eagle Smelting & Refining Works, New York, N. Y.
Lissberger, Marks, & Son, Inc., Long Island City.
National Lead Co., New York, N. Y.
Northwest Lead Company, Seattle, Wash. "Bunker Hill Brand."
Raymond Lead Works, Chicago, Ill.
Robertson, James, Lead Co., Baltimore, Md.
United American Metals Corp., Brooklyn, N. Y.
United Lead Co., New York, N. Y.

LEAD WOOL.

Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Bunker Hill Brand—Northwest Lead Co., Seattle, Wash.

Eagle-Picher Lead Co., The, Cincinnati, O.
Hoyt Metal Co., St. Louis, Mo.
Lissberger, Marks, & Son, Inc., Long Island City, N. Y.
National Lead Co., New York, N. Y.
Raymond Lead Co., Chicago, Ill.
Robertson, James, Lead Co., Baltimore, Md.
United Lead Co., New York, N. Y.
Wensley Metal Products Co., Denver, Colo.

LEATHER BELTING.

(See "Belting, Leather").

LEATHER FOR BELTING AND SPECIALTIES

Armour Leather Co., Philadelphia, Pa. "Sylva."
Alexander Bros., Inc., Philadelphia, Pa.
Asheville—Hans Rees' Sons, Inc., New York, N. Y.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Ladew, Edward R., Co., Inc., New York, N. Y.
Nott, W. S., Co., Minneapolis, Minn.
Shingle-Gibb Leather Co., Philadelphia, Pa.
U. S. Leather Co., The, Chicago, Ill.
Walton, Chas. S., & Co., Philadelphia, Pa.

LEATHER GOODS, LINEMEN'S.

Boston Woven Hose & Rubber Co., Cambridge, Mass.

LEATHER, LACE.

(See "Lacing, Belt, Leather.")

LEATHER, PUMP AND VALVE.

Adams & Allen, Fort Worth, Tex.
Alexander Bros., Inc., Philadelphia, Pa.
Algco—Auburn Leather Goods Co., Hartford, Conn.
Asheville—Hans Rees' Sons, Inc., New York, N. Y.
Athol Pump Co., Athol, Mass.
Atlantic Mfg. Co., Wilmington, Del.
Barwood—L. J. Barwood Mfg. Co., Stoneham, Mass.
Black Polish, Reliance, Sterling—Chicago Belting Co., Chicago, Ill.
Bond, Charles, Co., Philadelphia, Pa.
Chicago Well Supply Co., Chicago, Ill.
Cook, H. M., Belting Co., San Francisco, Cal.
Davis, John C., Rochester, N. Y.
Chibeco—Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Dragon—The Dragon Mfg. Co., Marietta, O.
Dynamo—W. S. Nott Co., Minneapolis, Minn.
Eagle Counter & Leather Co., The, Cincinnati, O.
Elmes, Chas. F., Engineering Works, Chicago, Ill.
Fieldco—R. B. Field & Co., Worcester, Mass.
Flex-O—Cross Bros. Co., Rochester, N. Y.
Forest City Leather Washer Co., Rockford, Ill.
Frank Bros., New York, N. Y.
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
Graton & Knight Co., Worcester, Mass. "Spartan."
Greene, Burton, Leather Co., Chicago, Ill. "Gibralter."
Hess & Hopkins Leather Co., Rockford, Ill.
Hoffeld, R. & Co., Buffalo, N. Y.
Johnson Belting Co., New York, N. Y.
Judd & Leland Mfg. Co., Clifton Springs, N. Y.
Kendrick Valve & Washer Co., Syracuse, N. Y.
Ladew, Edward R., Co., Inc., New York, N. Y.
Marston & Co., I. G., Boston, Mass.
Myers, F. E., & Bro., Co., Ashland, O.
Page Belting Co., Concord, N. H.
Rahmann, Geo., & Co., New York.
Red Jacket Mfg. Co. Davenport, Iowa.
Rockford Leather Washer Co., Rockford, Ill.
Simpleco—Simplex Mfg. Co., Auburn, N. Y.
Sunset—L. P. Degen Belting Co., San Francisco, Cal
Sutherland Leather & Felt Co., Detroit, Mich.
Warlo—Ward-Love Pump Corp., Rockford, Ill.
Warren Belting Co., Worcester, Mass.
Wear Well—Horace G. Preston Co., Detroit, Mich.
Williams, I. B., & Sons, Dover, N. H.

LEATHERS, BRAKE.

Chicago Rawhide Mfg. Co., The, Chicago, Ill. (elevator).

LEATHERS, CRIMP.

Adams & Allen, Ft. Worth, Texas.
Algco—Auburn Leather Goods Co., Hartford, Conn.
Barwood—L. J. Barwood Mfg. Co., Stoneham, Mass.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Fieldco—R. B. Field & Co., Worcester, Mass.
Nott, W. S., Co., Minneapolis, Minn.

LEATHERS, CUP AND FLANGE.

Algco—Auburn Leather Goods Co., Hartford, Conn.
Barwood—L. J. Barwood Mfg. Co., Stoneham, Mass.
Black Star, Durable, Bulldog, Superior—Adams & Allen, Ft. Worth, Texas.
Chicago Belting Co., Chicago, Ill. "Chibeco.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Cook, A. D., Inc., Lawrenceburg, Ind.
Cook, H. N., Belting Co., San Francisco, Cal.
Davis, John C. Rochester, N. Y.
Excelsior Leather Washer Mfg. Co., Inc., Rockford, Ill.
Fieldco—R. B. Field & Co., Worcester, Mass.
Forest City Leather Washer Co., Rockford, Ill.
Graton & Knight Co., Worcester, Mass.
Hess & Hopkins Leather Co., Rockford, Ill.
Hough Mfg. Co., The Chas. N., Franklin, Pa.
Judd & Leland Mfg. Co., Clifton Springs, N. Y.
Kendrick Valve & Washer Co., Syracuse, N. Y.
Ladew, Edward R., Co., Inc., New York, N. Y.
Marsh, Chas. W., Co., Muskegon, Mich.
Nott, W. S., Co., Minneapolis, Minn.
Page Belting Co., Concord, N. H.
Porpoise—Eastern Machinery & Equipment Co., Inc., Philadelphia.
Rockford Leather Washer Co., Rockford, Ill.
Sunset—L. P. Degen Belting Co., San Francisco, Cal
Warlo—Ward-Love Pump Corp., Rockford, Ill.

LEATHERS, FRICTION.

Bickford & Francis Belting Co., Buffalo, N. Y.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Eagle Counter & Leather Co. The, Cincinnati, O.
Houghton's Oak, Vim—Houghton, E. F., & Co., Philadelphia, Pa.
Ladew, Edward R., Co., Inc., New York, N. Y.
Nott, W. S., Co., Minneapolis, Minn.

LEATHERS, HAND.

Atlantic Mfg. Co., Wilmington, Del.
California Tanning Co., St. Louis, Mo.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago, Ill.
Graton & Knight Co., Worcester, Mass.
Hudson Belting Co., Worcester, Mass.
Ideal Face Shield Co., The, Columbus, O.
Jewell Belting Co., Hartford, Conn.
Raniville, F., Co., Grand Rapids, Mich.
Schieren—Chas. A. Schieren & Co., New York, N. Y.
Wheeler—F. H. Wheeler Mfg. Co., Chicago, Ill.

LEATHERS, HYDRAULIC.

Adams & Allen, Fort Worth, Texas.
Algco—Auburn Leather Goods Co., Hartford, Conn.
Asheville—Hans Rees' Sons, Inc., New York, N. Y.
Barwood—L. J. Barwood Mfg. Co., Stoneham, Mass.
Chicago Rawhide Mfg. Co. Chicago, Ill.
Chrome—Bonner & Barnewall, Inc., New York.
Cross Bros. Co., Inc., Rochester, N. Y.
Duxbak—Chas. A. Schieren Co., New York, N. Y.
Elmes, Chas. F., Engineering Works, Chicago, Ill.
Excelsior Leather Washer Co., Rockford, Ill.
Fieldco—R. B. Field & Co., Worcester, Mass.
Greene, Burton, Leather Co., Chicago, Ill. "Gibralter."
Graton & Knight Co., Worcester, Mass.
Helvetia—G. Groezingers Sons, Lancaster, Pa.
Hess & Hopkins Leather Co., Rockford, Ill.
Johnson Belting Co., New York, N. Y.
Judd & Leland Mfg. Co., Clifton Springs, N. Y.
Kendrick Valve & Washer Co., Syracuse, N. Y
Ladew, Edward R., Co., Inc., New York, N. Y.
National Leather Belting Co., New York, N. Y.
Nott, W. S., Co., Minneapolis, Minn.
Page Belting Co., Concord, N. H.
Rahmann, Geo. & Co., New York, N. Y.
Raniville, F., Co., Grand Rapids, Mich.
Reliance—Chicago Belting Co., Chicago, Ill.
Rockford Leather Washer Co., Rockford, Ill.
Schieren, Chas. A., Co., New York, N. Y.
Shingle-Gibb Leather Co., Philadelphia, Pa.
Watson-Stillman Co., The, New York, N. Y.
Wear Well—Horace G. Preston Co., Detroit, Mich.
Williams & Sons, I. B., Dover, N. H.

LEATHERS, PLUNGER.

(See also "Leathers, Pump.")
Adams & Allen, Fort Worth, Texas.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
Field, R. B., & Co., Worcester, Mass.
Frank Bros., New York, N. Y.
Rockford Leather Washer Co., Rockford, Ill.

LEATHERS, POLISHING.

Chicago Rawhide Mfg. Co., Chicago, Ill.
Jewell Belting Co., Hartford, Conn.
Oak Hemlock—Coe & Brown Co., New Haven, Conn.

LEGS, BENCH, CAST IRON AND STEEL.

Angle Steel Stool Co., Plainwell, Mich.
Baird Machine Co., The, Bridgeport, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chicago Pulley & Shafting Co., Chicago, Ill.
C. M. B. Wrench Co., Garwood, N. J.
Champion—Western Tool & Mfg. Co., Springfield, O.
Fairbanks Co., The, New York, N. Y.
Garwood—Garwood Bronze & Iron Works, Garwood, N. J.
Hill Clutch, Machine & Foundry Co., The, Cleveland, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.

Lupton—David Lupton's Sons Co., Philadelphia, Pa.
Lyon Metallic Mfg. Co., Aurora, Ill.
Meeco—Manufacturing Equipment & Engineering Co., The, Framingham, Mass.
New Britain Machine Co., New Britain, Conn.
Ot-Steel—Angle Steel Stool Co., Plainwell, Mich.
Pollard Bros. Mfg. Co., Inc., Chicago, Ill.
Standard Pressed Steel Co., Jenkintown, Pa. (Trade names—Bantam, Hallowell.)
Surty Mfg. Co., Inc., The Chicago, Ill.

LEGS, BOILER.

(See Stands, Range, Boiler.)

LEGS, CLOSET SEAT.

American Foundry & Mfg. Co., St. Louis, Mo.
Berglas, M. P., Mfg. Co., Brooklyn, N. Y.
Eclipse—John C. Kupferle Foundry Co., St. Louis, Mo.
Glenn Mfg. Co., St. Charles, Ill.
Heap, Wm., & Sons, Grand Haven, Mich.
Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Modern Iron Works, Quincy, Ill.
Ryan, J. J., & Co., Chicago, Ill.
Street & Kent Mfg. Co., Chicago, Ill.

LEGS, CLOSET AND URINAL STALL.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
Bommer Spring Hinge Co., Brooklyn, N. Y.
Brey & Krause Mfg. Co., Allentown, Pa.
Crane Co., Chicago, Ill.
Dent Hardware Co., Bangor, Pa.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Federal-Huber Co., Chicago, Ill.
Fee & Mason Mfg. Co., New York, N. Y.
Fries & Co., Buffalo, N. Y.
Glenn Mfg. Co., St. Charles, Ill.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia.
Jenkins Mfg. Co., Inc., Bloomfield, N. J.
McKenna Brass & Mfg. Co., Inc., Pittsburgh, Pa.
Lehnert & Co., New York, N. Y.
S & K—Street & Kent Mfg. Co., Chicago, Ill.
Sanitas Mfg. Co., Boston, Mass.
Seattle Brass Co., Seattle, Wash.
Speakman Co., Wilmington, Del.

LEGS, LAVATORY.

American Brass & Copper Co., The, New York, N. Y.
American Foundry & Mfg. Co., St. Louis, Mo.
Clow, James B., & Sons, Chicago, Ill.
Em Ess—The Meyer-Sniffen Co., New York, N. Y.
Federal-Huber Co., Chicago, Ill.
Glenn Mfg. Co., St. Charles, Ill.
Good Mfg. Co., New York, N. Y.
Humphryes Mfg. Co., The, Mansfield, O.
Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Maddock's, Thos., Sons Co., Trenton, N. J. (porcelain).
Peck Bros. & Co., New Haven, Conn.
Parker, Chas., Co., The, Meriden, Conn.
Reading Foundry & Supply Co., Reading, Pa.
Trenton Potteries Co., The, Trenton, N. J.
Wolff Mfg. Corp., Chicago, Ill.

LEGS, LIFT TRUCK PLATFORM.

Everlast Steelegs—Liftsaver Mfg. Co., New York, N. Y.
Plimpton Lift Truck Corp., The, Stamford, Conn.

LEGS, SHOP SEAT, CAST IRON.

New Britain Machine Co., The, New Britain, Conn.

LEGS, SINK.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
Bailey, Frederick T., & Co., North Scituate, Mass.
Bignall Co., The, Medina, N. Y.
Brey & Krause Mfg. Co., Allentown, Pa.
Chicago Pipe Co., Chicago, Ill.
Conemaugh Iron Works, Latrobe, Pa.
Crane Co., Chicago, Ill.
Crane Enamelware Co., Chattanooga, Tenn.
Crawford—F. W. Webb Mfg. Co., Boston, Mass.
Diamond—Robinson Stoneware Co., Brooklyn, N. Y.
Fee & Mason Mfg. Co., New York, N. Y.
Federal-Huber Co., Chicago, Ill.
Foran Foundry & Mfg. Co., Flemington, N. J.
Glenn Mfg. Co., St. Charles, Ill.
Hammond Iron Corp., Birmingham, Ala.
Humphryes Mfg. Co., The, Mansfield, O.
Jenkins Mfg. Co., Inc., Bloomfield, N. J.
MacDonald, Alex E., Worcester, Mass. (adjustable).
Modern Iron Works, Quincy, Ill.
Mott, J. L., Iron Works, The, Trenton, N. J.
Richmond Foundry & Mfg. Co., Richmond, Va.
Salem Brass & Iron Mfg. Co., Bridgeton, N. J.
Sanitary Company of America, Linfield, Pa.
Sanitary—Jordan & Steele Mfg. Co., Charlotte, Mich.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Street & Kent Mfg. Co., Chicago, Ill.
Swett, A. L., Iron Works, Medina, N. Y.
Union Sanitary Works, Noblesville, Ind.
Wolff Mfg. Corp., Chicago, Ill.

LEGS, SINK, SWINGING SEAT.

Crane Co., Chicago, Ill.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.

LENSES, AUTO LAMP.

Penberthy Injector Co., Detroit, Mich.

LETTERS AND FIGURES, BRASS.

(See also "Stamps, Steel.)

Knight, H. W. & Son, Seneca Falls, N. Y.
Wilcox, Crittenden & Co., Inc., Middletown, N. Y.

LETTERS AND FIGURES, PATTERN.

American Casting & Mfg. Corp., Brooklyn, N. Y.
Chain Products Co., The, Cleveland, Ohio.
Everett, A., & Son, Auburn, N. Y.
Knight, H. W., & Son, Seneca Falls, N. Y.
Matthews, Jas. H., & Co., Pittsburgh, Pa.
McCormick, J. S., Co., Pittsburg, Pa.
Newman Mfg. Co., The, Cincinnati, O.
Perfect—The Dunker Supply Co., Canton, Ohio.
Shanafelt Mfg. Co., The, Canton, O.
Timmis & Clissold, Bound Brook, N. J.

LEVELS, ARCHITECTS', CONTRACTORS', SURVEYORS' AND ENGINEERS'.

Dietzgen, Eugene, Co., Chicago, Ill.
Elliott Co., B. K., Pittsburgh, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Gurley—W. & L. E. Gurley, Troy, N. Y.
Kolesch & Co., New York, N. Y. "Kolesch."
Warren-Knight Co., Philadelphia, Pa. "Sterling."
White, David, Co., Inc., Milwaukee, Wis.

LEVELS, CARPENTERS' AND MASONS'.

Acme—The Acme Level & Mfg. Co., Archbold, O.
Chapin-Stephens Co., The, Pine Meadow, Conn.
Disston & Sons, Inc., Henry, Philadelphia, Pa
Empire Level Mfg. Co., Milwaukee, Wis. (adjustable aluminum). "Empire."
Goodell-Pratt Co., Greenfield, Mass.
Peerless—The Peerless Level & Tool Co., Sterling, Ill.
Stanley Rule & Level Co., New Britain, Conn.
Starrett, L. S., Co., Athol, Mass.

LEVELS, MACHINISTS'.

Chapin-Stephens Co., The, Pine Meadow, Conn.
Columbia Caliper Co., Marietta, Pa.
Disston, Henry, & Sons, Inc., Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Keuffel & Esser Co., New York, N. Y.
Red Devil—Smith & Hemenway Co., Irvington, N. J.
Starrett, L. S., Co., Athol, Mass.
Threadwell Tool Co., The, Greenfield, Mass.
Universal Boring Machine Co., Hudson, Mass.
Warren-Knight Co., Philadelphia, Pa. "Sterling."

LEVELS, MILLWRIGHTS'.

Empire—Empire Level Mfg. Co., Milwaukee, Wis.

LEVELS, PLUMBERS'.

Goodell-Pratt Co., Greenfield, Mass.
Starrett, L. S., Co., Athol, Mass.

LEVELS, POCKET.

Empire Torpedo—Empire Level Mfg. Co., Milwaukee, Wis.
Goodell-Pratt Co., Greenfield, Mass.
Modern Utilities Company, Harrisburg, Penna. "Perfection."
Stanley Rule & Level Co., New Britain, Conn.
Threadwell Tool Co., The, Greenfield, Mass.

LEVELS, ROAD BUILDERS'.

Jackson Line Level—Joseph Woodwell Co., Pittsburgh, Pa.

LEVELS, SHAFTING.

Disston & Sons Co., Henry, Philadelphia, Pa.

LEVELS, TRACK.

Handlan-Buck Mfg. Co., St. Louis, Mo.
Aldon Company, The, Chicago, Ill.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Richardson & Tallman, Shelbyville, Ill.
Verona Tool Works, Pittsburgh, Pa.

LEVERS, STARTING.

Williams, J. H., & Co., Buffalo, N. Y.

LEVERS AND CROSS-BARS, WATER CLOSET, TANK.

American Foundry & Mfg. Co., St. Louis, Mo.
American Sanitary Mfg. Co., Abingdon, Ill.
Ampinco—American Pin Co., Waterbury, Conn.
Brey & Krause Mfg. Co., Allentown, Pa.
Burlington Brass Works, Burlington, Wis.
Columbus Brass Co., Columbus, Ohio.
Curtin, A. F., Valve Co., The, Medford, Mass.
Delany—Coyne & Delany Co., Brooklyn, N. Y.
Enterprise Brass Works, Muskegon, Mich.
Federal-Huber Co., Chicago, Ill.
Hansen Brass Mfg. Co., Grand Rapids, Mich.
Inbraco—Indiana Brass Co., Frankfort, Ind.
I.X.L. Pump & Mfg. Co., Inc., Philadelphia, Pa.
I. & M.—Ireland & Matthews Mfg. Co., Detroit, Mich.
MacDonald, Alex. E., Worcester, Mass.
Miller, Charles A. Co., Sturgis, Mich.
M.-V. B.—Morency-Van Buren Mfg. Co., Sturgis, Mich.
Pawtucket Mfg. Co., Pawtucket, R. I.
Phoenix Brass Foundry, Irvington, N. J.
Riverside Foundry & Galvanizing Co., Kalamazoo, Mich.
Rockford Brass Works, Rockford, Ill.
Rotary—Frost Mfg. Co., The, Kenosha, Wis.
Sherwood Brass Works, Detroit, Mich.
Union Metal Works, Chelsea, Mass.

LEVERS, WATER CLOSET TANK, DOUBLE ACTION.

Enterprise Brass Works, Muskegon, Mich.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
McShane Bell Foundry Co., Baltimore, Md.
Sherwood Brass Works, Detroit, Mich.

LIDS, REPAIR.

Clark, H. W., Co., Mattoon, Ill.
Mueller Co., Decatur, Ill.

LIFTERS, COTTER PIN.

V & B—Vaughan & Bushnell Mfg. Co., Chicago, Ill.

LIFTERS, HAMMER, DROP.

Miner & Peck Mfg. Co., Derby, Conn.

LIFTERS AND HOLDERS, PIPE, WELL.

Babcock Lifter & Little Giant Holders—American Scale Co., Kansas City, Mo.
Crestline Mfg. Co., The, Crestline, O. "Hector."
Davis-Hansen Pump Co., Oshkosh, Wis.
Hawkeye—Chandler Pump Co., Cedar Rapids, Ia.
Ward-Love Pump Corp., Rockford, Ill. "Warlo-Giant."

LIFTERS, VALVE, GASOLINE ENGINE.

Buffum Tool Co., Louisiana, Mo.
Goodell-Pratt Co., Greenfield, Mass.
Herbrand Co., The, Fremont, O.
Mertz—Hunt-Lasher Co., Inc., Boston, Mass.
Morgan Mfg. Co., Inc., Keene, N. H.
Mossberg Pressed Steel Corp., Attleboro, Mass.
Smith, H. D., & Co., The, Plantsville, Conn. (Trade names—Perfect Handle, Ultimate.)
Syracuse Wrench Co., Syracuse, N. Y.
Vichek Tool Co., Cleveland, O.

LIFTS, MINE CAR.

Danville—Robt. Holmes & Bros., Inc., Danville, Ill.

LIFTS, WATER, OR HOUSE PUMPS, ELECTRIC AND WATER MOTOR DRIVEN.

(See "Pumps, House, Electric.")

LIGHTERS, GAS

Sav-U-Time, Rochester, N. Y.
Shootalite—Modern Engineering Co., St. Louis, Mo.

LIGHTERS, GAS, WATER HEATER.

Ever Ready—Ever Ready Gas Heater Valve Co., Detroit, Mich.
Johnson—Johnson-Murphy Co., Detroit, Mich.
Sav-U-Time, Rochester, N. Y.

LIGHTS, FLARE, CONTRACTORS'.

Buckeye—The Macleod Co., Cincinnati, O. (oil and carbide)
Carbic Mfg. Co., Duluth, Minn.
The Alexander Milburn Co., Baltimore, Md. (acetylene.)
Mine Safety Appliances Co., Pittsburgh, Pa.
Prest-O-Lite—Prest-O-Lite Co., Inc., Indianapolis, Ind.

LIMITS, ENGINE SPEED.

Strong's—Strong, Carlisle & Hammond Co., Cleveland, Ohio.

LINERS, SECTION.

Starrett, L. S., Co., The, Athol, Mass.

LINING, BOILER FURNACE.

A. & J. Hicarb—Adams & Jewell, Rome, N. Y.
B-K Plastic—The Boiler-Kote Co., Chicago, Ill.
Cokalite—Cokal Stoker Corp., Chicago, Ill.
Laclede-Christy Clay Products Co., St. Louis, Mo.
Washburn & Granger, Inc., New York.

LINING, BRAKE.

Allbestos Corporation, Philadelphia, Pa.
A. B. C.—American Brake Lining Co., Sellersville, Pa.
Ambler Autobestos—The Keasbey & Mattison Co., Ambler, Pa.
Asbestos Fibre Spinning Co., N. Wales, Pa.
Asbestos Materials Corp., Millington, N. J.
Bestbestos—Federal Asbestos Co., Paterson, N. J.
Best Test—Union Rubber & Asbestos Co., Trenton, N. J.
Brakebestos—Advance Packing & Supply Co., Chicago, Ill.
Cork Insert Co., Boston, Mass.
Durabestos—United States Asbestos Co., of Illinois, Chicago, Ill.
Emsco—E. M. Smith Co., Los Angeles, Cal.
Erbestos Brake Lining Co., Philadelphia, Pa.
Ferodo & Asbestos, Inc., New Brunswick, N. J.
Fordbestos, Twill-wear—Federal Asbestos Co., Paterson, N. J.
Garco—General Asbestos & Rubber Co., Charleston, S. C. (for Automobiles, Motor Trucks & Friction Drums).
Gilmer, L. H., Co., Tacony, Philadelphia, Pa.
Globestos—United & Globe Rubber, Inc., Trenton, N. J.
Longwear—Wearwell Gasket & Packing Co., Camden, N. J.
Multibestos Co., Walpole, Mass. (Trade names—Mulibestos, Taxitrux.)
Non-Burn—Johns-Manville, Inc., New York, N. Y.
Raybestos—Raybestos Co., The, Bridgeport, Conn.
Rubberbestos—McIlroy Belting Co., Griffith, Ind.
Rusco—Russell Mfg. Co., Middletown, Conn.
S-M-C. Universal—Staybestos Mfg. Co., Philadelphia, Pa.
Thermoid—Thermoid Rubber Co., 248 Chestnut St., Philadelphia, Pa.
United States Asbestos Co., Manheim, Pa. "U. S. Asbestos," "U. S. Industro-Truck."
Vitabestos—S. Flory Mfg. Co., Bangor, Pa.
Woven Steel Hose & Rubber Co., Trenton, N. J. "Blue Edge."

LINING, CUPOLA, BLAST FURNACE.

Laclede-Christy Clay Products Co., St. Louis, Mo.
Mica Schist—J. W. Paxson Co., Philadelphia, Pa.
U. S. Smelting Furnace Co., Belleville, Ill.

LINING, STOVE.

Atlas Mineral Products Co., The, Allentown, Pa. (asbestos).
Connor's, Wm., Paint Mfg. Co., Troy, N. Y.
Cooper's—Cooper Sanitary Mfg. Co., Philadelphia, Pa.
Elastic, Phoenix—Johns-Manville Corporation, New York, N. Y. "Elastic," "Phoenix."
Presbrey Stove Lining Co., Taunton, Mass.

LINKS, FUSIBLE OR LINK FUSES.

Chicago Fuse Mfg. Co., Chicago, Ill.
General Electric Co., Schenectady, N. Y.

LINKS, CONNECTING, CHAIN.

American Chain Co., Bridgeport, Conn.
Bridgeport Chain Co., Bridgeport, Conn.
Chain Products Co., The, Cleveland, O.
Diamond Chain & Mfg. Co., Indianapolis, Ind.
Eagle, Missing Link—The Thomas Laughlin Co., Portland, Me.
Haskell, Wm. H., Mfg. Co., The, Pawtucket, R. I.
Howe Chain Co., Muskegon, Mich.
Jeffrey Mfg. Co., Columbus, O.
K. & B.—The Kilborn & Bishop Co., New Haven, Conn.
Link-Belt Company, Chicago and Philadelphia.
Marine Hardware Equipment Co., S. Portland, Me.
Newhall Chain Forge & Iron Co., New York, N. Y.
Webster Mfg. Co., Chicago, Ill.
Wilcox, Crittenden & Co., Inc., Middletown, Conn.

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LINKS, SPLIT.

American Chain Co., Bridgeport, Conn.
Plume & Atwood Mfg. Co., Waterbury, Conn.
Russell, John M., Mfg. Co., Naugatuck, Conn.
Smith & Egge Mfg. Co., Bridgeport, Conn.

LITHARGE OR TEST LEAD.

American Smelting & Refining Co., New York, N. Y.
Eagle-Picher Lead Co., Cincinnati, O.

LOADERS, LOG.

American—American Hoist & Derrick Co., St. Paul, Minn.
Clyde Iron Works, Duluth, Minn.
Forest—National Iron Co., Duluth, Minn.
Lidgerwood Mfg. Co., New York, N. Y.
Link-Belt Co., Chicago and Philadelphia.
Marion Steam Shovel Co., The, Marion, Ohio.
Street Brothers Machine Works, Chattanooga, Tenn.
Wheland Company, The, Chattanooga, Tenn.

LOADERS, CAR.

Atlas Engineering Co., Milwaukee, Wis.
Barber-Greene Co., Aurora, Ill.
Caldwell, H. W., & Son Co., Chicago, Ill.
Fairmont—Fairmont Mining Machinery Co., Fairmont, W. Va.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Link Belt Company, Chicago and Philadelphia.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Weller Mfg. Co., Chicago, Ill.
Wolf Company, The, Chambersburg, Pa.

LOADERS, TRUCK AND WAGON.

Atlas—Atlas Engineering Co., Milwaukee, Wis.
Caldwell, H. W., & Son Co., Chicago, Ill.
Barber-Greene Co., Aurora, Ill.
Gifford-Wood Co., Hudson, N. Y.
Haiss, Geo., Mfg. Co., New York, N. Y.
Jeffrey Mfg. Co., Columbus, O.
Jordan & Steele Mfg. Co., The, Charlotte, Mich. (sand and gravel).
Link-Belt Company, Chicago and Philadelphia.
Robins Conveying Belt Co., New York.
Sackett, H. B., Screen & Chute Co., Chicago, Ill.
Porta Scoop Conveyor—Portable Machinery Co., Inc., Passaic, N. J.
Seaverns, James B., Co., Chicago, Ill.
Smith—T. L. Smith Co., The, Milwaukee, Wis.
Specialty Engineering Co., Philadelphia, Pa.
Washington Machinery & Supply Co., Spokane, Wash
Weller Mfg. Co., Chicago, Ill.

LOCATORS, LEAK, UNDERGROUND PIPE.

Aquaphone—Water Works Equipment Co., New York, N. Y.
Darley, W. S., & Co., Chicago, Ill.
Electric Specialty Mfg. Co., Cedar Rapids, Iowa.
Sonofone—H. W. Clark Co., Mattoon, Ill.
Transmit-O-Phone — O'Donnell Specialty Co., New York, N. Y.
Underground Signal Co., San Anselmo, Calif.

LOCATERS, PIPE, ELECTRIC.

Wireless—Electric Specialty Mfg. Co., Cedar Rapids, Ia.

LOCKERS, METAL.

All-Steel-Equip Co., Aurora, Ill.
Aurora Steel Products Co., Aurora, Ill.
Barshal Company, Inc., The, Cleveland, O.
Berloy—The Berger Mfg. Co., Canton, Ohio.
Buffalo Wire Works Co., Buffalo, N. Y.
Dexter Metal Mfg. Co., Camden, N. J.
Durabilt Steel Locker Co., Aurora, Ill.
Durand—Durand Steel Locker Co., Chicago, Ill.
Federal Steel Fixture Co., Chicago, Ill.
H. & H.—The Hart & Hutchinson Co., New Britain, Conn. (steel).
Hess—Hess Warming & Ventilating Co., Chicago, Ill
Jefferis—Richard W. Jefferis Co., Camden, N. J.
Lyon—Lyon Metallic Mfg. Co., Aurora, Ill.
Meeco—Manufacturing Equipment & Engineering Co., Framingham, Mass.
Medart, Fred, Mfg. Co., St. Louis, Mo.
Pen-Dar—Darby Steel Equipment Co., Philadelphia, Pa.
Pratt, Wm. E., Mfg. Co., Chicago, Ill. "Pratt."
Shawmut Iron & Wire Works, Everett, Mass.
Standard—Narragansett Machine Co., Providence, R. I.
Terrell's Equipment Co., Grand Rapids, Mich. "Terrell's."

LOCKERS, STEEL, ENGINEERS' EQUIPMENT.

Berger—The Berger Mfg. Co., Canton, O.
Wilcox Engineering Co., Saginaw, Mich.

LOCKNUTS, MACHINE.

American Bolt Corp., Chicago, Ill.; Bayonne, N. J.; Detroit, Mich.
Bartley—American Nut & Bolt Fastener Co., Pittsburgh, Pa.
Boss Nut—Boss Nut Co., Chicago, Ill.
Champion Machine & Forging Co., New York, N. Y.
Columbia—Columbia Nut & Bolt Co., Bridgeport, Conn.
Drake—Drake Lock-Nut Co., Cleveland, O.
Newbury Mfg. Co., Monroe, N. Y.
Otis, Spencer, Co., Chicago, Ill.
Reliance Mfg. Co., Massillon, O.
Western Automatic Machine Screw Co., The, Elyria, O

LOCKNUTS, PIPE.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Crane Co., Chicago, Ill.
Fee & Mason Mfg. Co., New York, N. Y.
Gib—Columbia Nut & Bolt Co., Inc., Bridgeport, Conn.
Illinois Malleable Iron Co., Chicago, Ill.
Kuhns Bros., Dayton, O.
Modern Mfg. Co., Cleveland, Ohio.
Newbury, Jay H., & Son, Goshen, N. Y.
Newbury Mfg. Co., Monroe, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, O.
Ravena Iron Works, Ravena, N. Y.
Richardson, Edro, Brass Co., Baltimore, Md.
Walworth Company, Boston, Mass.

LOCKS, DOOR.

Richards-Wilcox Mfg. Co., Aurora, Ill.

LOCKS, NUT.

Bartley—American Nut & Bolt Fastener Co., Pittsburgh, Pa.
Bull-Dog—Waynesboro Nut Lock Co., Waynesboro, Pa.
Columbia—Columbia Nut & Bolt Co., Bridgeport, Conn.
Heartley Machine, Variety Iron & Tool Works, Toledo, Ohio.
Hold-Tite—Steel Specialties Co., Wakefield, Mass.
Hugtite—United Nut Lock Co., Springfield, Mass.
Palnut Co., Irvington, N. J.
Pratt Chuck Co., Frankfort, N. Y.
Reliance Mfg. Co., Massillon, O.
Rockwood Sprinkler Co. of Mass., Worcester, Mass.
Verona—Verona Tool Works, Pittsburg, Pa.

LONGSCREWS.

Chicago Nipple Mfg. Co., Chicago, Ill.
Climax—C. M. Kemp Mfg. Co., Baltimore, Md.
Crawford Co., Chicago, Ill.
Cressman, N. G., Co., Philadelphia, Pa.
Devlin Mfg. Co., Thos., Philadelphia, Pa.
Ford & Kendig Co., Philadelphia, Pa.
Fretz, S. S., Jr., & Co., Philadelphia, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Kleinman, Russell F., Philadelphia, Pa.
Lansdale Nipple Co., Lansdale, Pa.
N. T. C.—National Tube Co., Pittsburgh, Pa.

LUBRICANTS.

(See "Grease" and "Oil.")

LUBRICATING SYSTEMS, HIGH PRESSURE.

Alumite—Bassick Mfg. Co., Chicago, Ill.
Balcrank—The Cincinnati Ball Crank Co., Cincinnati, O.

LUBRICATORS.

(See also "Pumps, Oil," "Cups, Grease," and "Cups, Oil.")

Admiral—The Wm. Powell Co., Cincinnati, O.
Ajax—American Lubricator Co., Detroit, Mich.
American—American Lubricator Co., Detroit, Mich.
Arcadia—Arcadia Lubricator Co., Long Beach, Cal.
Ashton—Walter L. Flower Steam Specialty Co., St. Louis, Mo.
Buffalo (sight feed), Hart—Sherwood Mfg. Co., Buffalo, N. Y.
Bull's Eye—Essex Brass Corp., Detroit, Mich.
Bull's Eye, Simplex, Duplex, Max—Nathan Mfg. Co., New York, N. Y.
Burrows, F. A., Mfg. Co., York, Pa.
Captain—The Wm. Powell Co., Cincinnati, O.
Chicago—The Ohio Injector Co., Wadsworth, O.
Collins—Collins Metallic Packing Co., Philadelphia, Pa. (flange).
Columbia—American Lubricator Co., Detroit, Mich.
Columbian—The Wm. Powell Co., Cincinnati, O.
Couse—Eastwood Wire Mfg. Co., Belleville, N. J.
Crane Co., Chicago, Ill.
Crescent—The Wm. Powell Co., Cincinnati, O.
Detroit Lubricator Co., Detroit, Mich. "Detroit," "Genuine Detroit," "Zero."
Ellis—The Lubron Co., Everett, Mass.
Empress—Bowen Products Corp., Auburn, N. Y.
Ensign—The Wm. Powell Co., Cincinnati, O.
Garratt—W. T. Garratt & Co., San Francisco, Cal.
General Brass Company, Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Imperial Brass Mfg. Co., Chicago, Ill. "Imperial."
Jumbo, Siebert—Star Brass Mfg. Co., Boston, Mass
Kipp—Madison-Kipp Corp., Madison, Wis.
Knorr—Malcolm H. Smith Co., Inc., Boston, Mass.
Krahn Mfg. Co., Milwaukee, Wis. "Krahn."
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, O. "Arctic," "Banner," "Cupid," "Graphite," "Hercules," "Junior," "Major," "Senior," "Beacon," "Colonial," "Emblem," "Mars," "Paragon," "Paragon Duplex," "Paragon Triplex," "Premier," "Independent."
McCullough Mfg. Co., Minneapolis, Minn.
Manzel—Manzel Bros. Co., Buffalo, N. Y.
Meyeringh—Oil Well Supply Co., Pittsburgh, Pa.
Novelty Mfg. Co., The, Waterbury, Conn.
Nugent, Wm. W. & Co., Chicago, Ill.
Ohio—Ohio Grease Co., Loudonville, Ohio.
Peerless—Essex Brass Corp., Detroit, Mich.
Penberthy—Penberthy Injector Co., Detroit, Mich.
Phenix—Richardson-Phenix Co., Milwaukee, Wis.
Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
Richardson—Richardson-Phenix Co., Milwaukee, Wis.
Schenck Mfg. & Supply Co., Parkers Landing, Pa.
Sherman Mfg. Co., H. B., Battle Creek, Mich.
Spartan—The Wm. Powell Co., Cincinnati, O.
Swift—The Swift Lubricator Co., Elmira, N. Y.
Texaco—The Texas Co., New York, N. Y.
Trojan—The Wm. Powell Co., Cincinnati, O.
Volz Engineering Equipment Co., Long Beach, Cal. "Volz."
Walworth Company, Boston, Mass.
Williams, D. T., Valve Co., Cincinnati, O. (Trade names—Wizard, Wyandote, Walrus, Worthy, Wonder.)

LUBRICATORS, AIRBRAKE.

General Brass Company, Detroit, Mich.
Swift—The Swift Lubricator Co., Elmira, N. Y.

LUBRICATORS, AIR COMPRESSOR.

American Injector Co., Detroit, Mich.
American Lubricator Co., Detroit, Mich.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
General Brass Company, Detroit, Mich.
Manzel Brothers Co., Buffalo, N. Y.
McCullough Mfg. Co., Minneapolis, Minn.
Penberthy Injector Co., Detroit, Mich.
Rochester—Greene, Tweed & Co., New York, N. Y.

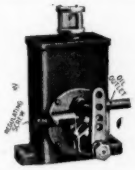
LUBRICATORS, CYLINDER.

Ashton—Walter L. Flower Steam Specialty Co., St. Louis, Mo.
Buffalo (sight feed)—Sherwood Mfg. Co., Buffalo, N. Y.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
General Brass Company, Detroit, Mich.
McCullough Mfg. Co., Minneapolis, Minn.
Manzel—Manzel Bros. Co., Buffalo, N. Y.
Ohio—The Ohio Grease Co., Loudonville, O.
Pickering Governor Co., The, Portland, Conn.
Richardson-Phenix Co., Milwaukee, Wis.

LUBRICATORS, FORCE FEED.

(See also "Pumps, Oil.")

Biddison—Biddison Mfg. Co., The, Madison, Wis.
Dake—The Success Novelty Co., Richmond, Va.
Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., Cincinnati, O.
Essex Brass Corp., Detroit, Mich.
Favorite, Hart—Sherwood Mfg. Co., Buffalo, N. Y.
General Brass Company, Detroit, Mich.
Hills-McCanna Co., Chicago, Ill.
Kipp—Madison-Kipp Corp., Madison, Wis.
Krahn Mfg. Co., Milwaukee, Wis. "Krahn."
Lunkenheimer Co., Cincinnati, O. (Trade names—Auto, Alpha, Mars, Marvel, Imperial, Paragon, Premier, Universal, Vulcan.)



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Nathan Mfg. Co., New York, N. Y.
Powell Co., The Wm., Cincinnati, O.
Rochester—Greene, Tweed & Co., New York, N. Y.
Richardson Phenix Co., The, Milwaukee, Wis.
Unique—Fosston-Carpenter Co., St. Paul, Minn.

LUBRICATORS AND OIL CUPS, GAS ENGINE.

American Injector Co., Detroit, Mich.
Buffalo—Sherwood Mfg. Co., Buffalo, N. Y.
Chicago—The Ohio Injector Co., Wadsworth, O.
Commonwealth Brass Corp., Detroit, Mich.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Empress—Bowen Products Corp., Auburn, N. Y.
Explo Sure-Feed—American Injector Co., Detroit, Mich.
General Brass Company, Detroit, Mich.
Hall Mfg. Co., Harrison, N. J.
Hydro—Essex Brass Corp., Detroit, Mich.
Lonergan, J. E., Co., Philadelphia, Pa.
Manzel Brothers Co., Buffalo, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.
Nathan Mfg. Co., New York, N. Y.
National Brass Mfg. Co., Rochester, N. Y.
Perfection—American Lubricator Co., Detroit, Mich.
Powell Co., The Wm., Cincinnati, O. (Trade names: Trident, Vakum, Viking, Viduet, Vitray.)
Reliable—American Lubricator Co., Detroit, Mich.
Republic—W. D. Allen Mfg. Co., Chicago, Ill.
Rich Mfg. Co., Boston, Mass.
Surefeed—American Injector Co., Detroit, Mich.
Suredrop—Penberthy Injector Co., Detroit, Mich.
Swift—The Swift Lubricator Co., Elmira, N. Y.
Walworth Company, Boston, Mass.
Williams, D. T., Valve Co., The, Cincinnati, O. (Trade names—Wonder, Worthy.)

LUBRICATORS, GRAPHITE.

Detroit—Detroit Lubricator Co., Detroit, Mich.
Dixon Crucible Co., Joseph, Jersey City, N. J.
Griffiths, James A., & Son, Philadelphia, Pa. "Earley's."
Hill & Griffith Co., Cincinnati, O.
National Graphite Lubricator Co., Scranton, Pa.
Pittsburgh Gage & Supply Co., Pittsburg, Pa.
Randall—Randall Graphite Products Corp., Chicago.
Richardson-Phenix Co., Milwaukee, Wis.
T. M. S.—L. Sonneborn Sons, Inc., New York, N. Y.
U. S. G. Co.—U. S. Graphite Co., The, Saginaw, Mich.

LUBRICATORS, HAND PRESSURE.

Alumite—Bassick Mfg. Co., Chicago, Ill.
Balcrank—The Cincinnati Ball Crank Co., Cincinnati, O.

LUBRICATORS, LOCOMOTIVE.

Bull's Eye—Michigan Lubricator Co., Detroit, Mich.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., Cincinnati, O.
Lunkenheimer Co., The, Cincinnati, O.
Ohio Injector Co., The, Wadsworth, O.

LUBRICATORS, MACHINERY, HIGH PRESSURE.

(See also "Guns, Grease.")

Balcrank—The Cincinnati Ball Crank Co., Cincinnati, O.
Keystone Lubricating Co., Philadelphia, Pa.

LUBRICATORS, PISTON VALVE.

Manzel Brothers Co., Buffalo, N. Y.

LUBRICATORS, PLAIN ENGINE.

Chicago—The Ohio Injector Co., Wadsworth, O.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., Cincinnati, O.
Essex Brass Corp., Detroit, Mich.
General Brass Company, Detroit, Mich.
Hall Mfg. Co., Harrison, N. J.
Haydenville Co., The, Haydenville, Mass.
Penberthy—Penberthy Injector Co., Detroit, Mich.
Powell Co., The Wm., Cincinnati, O.
Swift Lubricator Co., The, Elmira, N. Y. "Swift."
Walworth Company, Boston, Mass.
Williams, D. T., Valve Co., Cincinnati, O. (Trade names—Warrior, Wyandot.)

LUBRICATORS, SHAFTING.

Hall's—Hall Mfg. Co., Harrison, N. J.
Nathan Mfg. Co., New York, N. Y.
Swain Co., The, Chicago, Ill.

LUBRICATORS, VALVE STEM.

Westland Engineering Supply Co., Chicago, Ill.

LUGS, BOILER AND TANK.

Illinois Malleable Iron Co., Chicago, Ill.
Lanz, M., Bolt Co., Pittsburgh, Pa.
National Malleable & Steel Castings Co., Cleveland, Ohio.
Roe—Glasgow Iron Co., Pottstown, Pa.
St. Louis Malleable Casting Co., St. Louis, Mo.

MACHINES, ASSEMBLING, NUT AND BOLT.

Williams, White & Co., Moline, Ill.

MACHINES AND CHUCKS, BABBITTING, EMERY WHEEL.

"Economy"—Skinner Chuck Co., New Britain, Conn.
Norton Co., Worcester, Mass.

MACHINES OR WAYS, BALANCING.

(For balancing revolving objects.)

Anderson Bros. Mfg. Co., Rockford, Ill. "Anderson."
Bowsher—The N. P. Bowsher Co., South Bend, Ind.
Defiance Machine Works, The, Defiance, O.
Olsen-Carwen—Tinius Olsen Testing Machine Co., Philadelphia, Pa.
N. W. A.—Vibration Specialty Co., Philadelphia, Pa.
Precision—Gisholt Machine Co., Madison, Wis.
Sundstrand Machine Tool Co., Rockford, Ill. "20th Century Rockford."
Whitney—Whitney Metal Tool Co., Rockford, Ill.

MACHINES, BALL TURNING.

American Tool & Machine Co., Boston, Mass.

MACHINES, BAND SAW.

American Saw Mill Machinery Co., Hackettstown, N. J.
Anderson Band Saw Co., Inc., The, Dunedin, Fla.
Armstrong-Blum Mfg. Co., Chicago, Ill. (Metal) "Marvel."
Atkins Kwik Kut—E. C. Atkins & Co., Indianapolis, Ind.
Barnes—W. O. Barnes Co., Detroit, Mich. (metal and wood).
Bauer & Pease, Grand Rapids, Mich.
Boice-Crane—W. B. & J. E. Boice, Toledo, O.
Clark Tool Wks., Inc., Belmont, N. Y. (Metal).
Clark Bros. Co., Olean, N. Y.
Crescent—The Crescent Machine Co., Leetonia, O.
Diamond—Diamond Iron Works, Minneapolis, Minn.
Emmert Mfg. Co., Waynesboro, Pa.
Gage Mfg. Co., Gardner, Mass.
H & A—Heston & Anderson, Fairfield, Iowa (portable).
Hall & Brown Woodworking Machine Co., St. Louis, Mo.
Hoosier—The Sinker-Davis Co., Indianapolis, Ind.
Jarvis, Benj. E., Inc., Newark, N. J.
Jarvis—Emmert Mfg. Co., Waynesboro, Pa.
Klemm—E. R. Klemm, Chicago, Ill. (Metal).
Lane Mfg. Co., Montpelier, Vt.
Leach Company, The, Oshkosh, Wis.
Little Giant Co., Mankato, Minn.
Mereen-Johnson Machine Co., Minneapolis, Minn. (portable).
Mershon, Wm. B., & Co., Saginaw, Mich.
Napier, Junior—Metal Saw & Machine Co., Inc., Springfield, Mass.
Porter-Cable Machine Co., Syracuse, N. Y.
Racine—Racine Tool & Machine Co., Racine, Wis. (metal).
Sidney Machine Tool Co., The, Sidney, O.
Smith—H. B. Smith Machine Co., Smithville, N. J.
Tannewitz Works, The, Grand Rapids, Mich.
Thompson, Henry G., & Son Co., New Haven, Conn. "Eureka," "Mil Clark."
Towsley—John T. Towsley Mfg. Co., Cincinnati, O.
Union—Gallmeyer & Livingston Co., Grand Rapids, Mich. (portable).
Wallace—J. D. Wallace & Co., Chicago, Ill.
Wardwell—The Wardwell Mfg. Co., Cleveland, O.
Wheland Company, The, Chattanooga, Tenn.
Wizard—Bay State Saw & Tool Mfg. Co., Inc., Winchester, Mass.
Woodworkers Tool Works, Chicago, Ill.

MACHINERY, BAND SAW FILING AND SETTING.

American Woodworking Machinery Co., Rochester, N. Y.
Bauer—Zeiller & Nagel, Brooklyn, N. Y.
Black Diamond Saw & Machine Works, Natick, Mass.
Disston, Henry, & Sons, Philadelphia, Pa.
Huther Bros. Saw Mfg. Co., Inc., Rochester, N. Y.
Mershon, Wm. B. & Co., Saginaw, Mich.
Silver—Silver Mfg. Co., Salem, O.

MACHINES, BAR POINTING.

Namco—The National Acme Co., Cleveland, O.

MACHINES, BAR STRAIGHTENING.

Manning, Maxwell & Moore, Inc., New York, N. Y.
Medart Co., The, St. Louis, Mo.
Standard Machinery Co., Providence, R. I.

MACHINERY, BEADING, SHEET METAL.

Bliss—E. W. Bliss Co., Brooklyn, N. Y.
Quickwork—The Quickwork Co., St. Marys, O.
Toledo Machine & Tool Co., Toledo, O.

MACHINES, BELT LACING.

(See "Belt Lacers.")

MACHINES, BENDING AND STRAIGHTENING.

(For beam, rail, rod or shaft.)

Ajax Mfg. Co., The, Cleveland, O.
Atlas Machine Co., The, Waterbury, Conn.
Baird Machine Co., Bridgeport, Conn.
Barnard, Chas. A., Machine Co., Gardner, Mass.
Bertsch & Co., Cambridge City, Ind.
Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.
Bliss Co., E. W., Brooklyn, N. Y.
Buffalo Forge Co., Buffalo, N. Y.
Canton Foundry & Machine Co., Canton, O.
Chambersburg Engineering Co., Chambersburg, Pa.
Chicago—Dreis & Krump Mfg. Co., Chicago, Ill.
Cleveland Punch & Shear Works, Co., Cleveland.
Eclipse—Geo. C. Christopher & Son, Wichita, Kan.
Espen-Lucas Machine Works, Philadelphia, Pa.
Excelsior Tool & Machine Co., East St. Louis, Ill.
Galland-Henning Mfg. Co., Milwaukee, Wis.
Heartley Machine, Variety Iron & Tool Works, Toledo, Ohio.
Hilles & Jones—Consolidated Machine Tool Corp. of America, New York, N. Y.
Hydraulic Press Mfg. Co., The, Columbus, O. "H.P.M."
Kane & Roach, Syracuse, N. Y.
Koehring Company, Milwaukee, Wis.
Manning, Maxwell & Moore, Inc., New York, N. Y.
Medart Company, The, St. Louis, Mo.
Morgan Engineering Co., Alliance, O.
Niles-Bement-Pond Co., New York, N. Y.
Quickwork Company, The, St. Marys, O.
Sellers, Wm., & Co., Inc., Philadelphia, Pa.
Springfield Machine Tool Co., Springfield, O.
Sutton—Abramsen Engineering Co., Pittsburgh, Pa.
Toledo Machine & Tool Co., Toledo, O.
United Engineering & Foundry Co., Pittsburgh, Pa.
Universal—J. Fillmore Cox & Co., Bayonne, N. J.
Wallace Supplies Mfg. Co., Chicago, Ill.
Watson-Stillman Co., New York City.
Wheeling Mold & Foundry Co., Wheeling, W. Va.
Williams, White & Co., Moline, Ill.

MACHINES, BEVELING.

Empire Line—Empire Machine Works, Mt. Morris, N. Y.
Grammes, L. F., & Sons, Allentown, Pa.
Hilles & Jones—Consolidated Machine Tool Corp. of America, New York, N. Y. (angle and plate).
Thomas Spacing Machine Co., Pittsburgh, Pa (Angle.)

MACHINERY, BOLT, NUT AND RIVET.

(See also "Headers, Bolt," and "Tappers, Nut.")

Acme Machinery Co., Cleveland, O.
Ajax Mfg. Co., Cleveland, O.
Armstrong Mfg. Co., The, Bridgeport, Conn.
Baird Machine Co., Bridgeport, Conn.
Burdict—Howard Iron Works, Buffalo, N. Y.
Chambersburg Engineering Co., Chambersburg, Pa.
Geometric Tool Co., New Haven, Conn.
Harrington Company, Philadelphia, Pa.
Haskell, Wm. H., Mfg. Co., Pawtucket, R. I.
Landis Machine Co., Inc., Waynesboro, Pa.
Manning, Maxwell & Moore, Inc., New York, N. Y.
Manville, E. J., Machine Co., Waterbury, Conn.
Niles-Bement-Pond Co., New York, N. Y.
Oster Mfg. Co., The, Cleveland, O.
Pawtucket Mfg. Co., Pawtucket, R. I.
Peerless Automatic Mach. Co., Cleveland, O.
Pryibil Machine Co., P., New York, N. Y.
Sellers, Wm., & Co., Inc., Philadelphia, Pa.
Standard Engineering Co., Ellwood City, Pa.
Standard—Universal Machine Co., The, Bowling Green Ohio.
Victor Tool Co., Waynesboro, Pa.
Williams Tool Corp., Erie, Pa.

MACHINES, BOLT AND CAP SCREW THREADING.

Kent Machine Co., Kent, O.

MACHINERY, BOLTING OR SHORT LOG SAWING

Empire—American Saw Mill Machinery Co., Hackettstown, N. J.
Hill-Curtis Co., Kalamazoo, Mich.
Hoosier—The Sinker-Davis Co., Indianapolis, Ind.
Ober—Ober Mfg. Co., Chagrin Falls, Ohio.

MACHINES, BORING AND DRILLING.

Baker Bros., Toledo, O.
Bowlus Mfg. Co., The, Springfield, O. (Chain Drive).
Ingersoll Milling Machine Co., The, Rockford, Ill.
Manning, Maxwell & Moore, Inc., New York, N. Y.
Morris Machine Tool Co., The, Cincinnati, O.

MACHINES, BORING, DRILLING AND MILLING COMBINED.

Blomquist-Eck Machine Co., Cleveland, Ohio.
Defiance Machine Works, Defiance, Ohio.
Gidding & Lewis Machine Tool Co. (horizontal), Fond du Lac, Wis. (Trade names—Bordrilmil, G. & L.)
Ingersoll Milling Machine Co., The, Rockford, Ill. (horizontal).
Jones Machine Tool Works, Philadelphia, Pa.
Pittsburgh—Pittsburgh Machine Tool Co., Pittsburgh, Pa.
Precision—Lucas Machine Tool Co., Cleveland, O.
Sellers, William, & Co., Philadelphia, Pa.

MACHINES, BORING AND TURNING.

American Saw Mill Machinery Co., Hackettstown, N. J.
American Tool Works Co., Cincinnati, O.
Baker Bros., Toledo, O.
Barnes Drill Co., Rockford, Ill.
Barrett Machine Tool Co., Meadville, Pa.
Bausch Machine Tool Co., Brightwood, Mass.
Beaman & Smith—Manning, Maxwell & Moore, Inc., New York, N. Y.
Bickford—H. Bickford & Co., Lakeport, N. H.
Carroll Foundry & Machine Tool Co., Bucyrus, O.
Cincinnati Planer Co., The, Cincinnati, O. (Vertical.)
Coates—Coates Clipper Mfg. Co., Worcester, Mass.
Colburn—Colburn Machine Tool Co., Cleveland, O. (vertical).
Crescent—The Crescent Machine Co., Leetonia, O.
Defiance Machine Works, Defiance, Ohio.
Espen-Lucas Machine Works, Philadelphia, Pa
Farmington Machine & Supply Co., Farmington, Me.
Footburt—The Foote-Burt Co., Cleveland, O. (multiple spindle).
Gisholt Machine Co., Madison, Wis.
Grammes, L. F., & Sons., Allentown, Pa. (post).
Grand Rapids Hardware Co., Grand Rapids, Mich. (post).
Greenlee Bros. & Co., Rockford, Ill.
Harrington Company, Philadelphia, Pa.
Johnson, Jr., Co., Inc., I. H., Philadelphia, Pa.
Kane & Roach, Syracuse, N. Y.
King Machine Tool Co., The, Cincinnati, O.
Lambert Machine & Engineering Co., Cleveland, O.
McCabe, J. J., Lathe & Machinery Corp., New York, N. Y.
Manning, Maxwell & Moore, Inc., New York, N. Y.
Millers Falls Co., Millers Falls, Mass. (wood).
Mult-Au-Matics—Bullard Machine Tool Co., Bridgeport, Conn.
Newton—Newton Machine Tool Works, Inc., Philadelphia, Pa.
Niles-Bement-Pond Co., New York, N. Y.
Ober Mfg. Co., The, Chagrin Falls, O. (wood).
Pedrick Tool & Machine Co., Philadelphia, Pa.
Phillips—Ajax Mfg. Co., Pittsburgh, Pa.
Precision—Lucas Machine Tool Co., Cleveland, O.
Reed-Prentice Co., Boston, Mass.
Pulaski Foundry & Mfg. Corp., Pulaski, Va. (large).
Rockford Drilling Machine Co., Rockford, Ill. (horizontal).
Sellers & Co., Inc., Wm., Philadelphia, Pa.
Snell Mfg. Co., Fiskdale, Mass.
Springfield Machine Tool Co., Springfield, O.
Swan Co., The James, Seymour, Conn.
Taylor & Fenn Co., Hartford, Conn.
Thor—Independent Pneumatic Tool Co., Chicago, Ill.
Towsley—John T. Towsley Mfg. Co., Cincinnati, O.
Turner Machine Co., Danbury, Conn.
Universal, Tri-Way—Universal Boring Machine Co., Hudson, Mass. (horizontal).
Valley City—Gallmeyer & Livingston Co., Grand Rapids, Mich. (radial).
Western Machine Tool Works, Holland, Mich.
W. B.—San Francisco Engineering Co., San Francisco, Cal.
Whitney—Baxter D. Whitney & Son, Inc., Winchendon, Mass.
Woods Machine Co., S. A., Boston, Mass.

MACHINES, BRAIDING AND WINDING.

Meriden Machine Tool Co., Meriden, Conn.
New England Butt Co., Providence, R. I.

MACHINES, BRAZING, KEROSENE AND GASOLINE.

Machinery Company of America, Big Rapids, Mich. (saw).

MACHINES, BROACH GRINDING.

Lapointe—J. N. Lapointe Co., New London, Conn.

MACHINES, BROACHING, AND BROACHES.

American Broach & Machine Co., Ann Arbor, Mich.
Bilton Machine Tool Co., The, Bridgeport, Conn.
Broachwell—Threadwell Tool Co., Greenfield, Mass.
Chambersburg Engineering Co., Chambersburg, Pa.
Elmes, Charles F., Engineering Works, Chicago, Ill.
Hydraulic Press Mfg. Co., The, Columbus, O. (Hydraulic). "H. P. M."
Hercules Mfg. Co., Detroit, Mich.
Lapointe Machine Tool Co., Hudson, Mass.
Lapointe, J. N., Co., The, New London, Conn.
Logemann Bros., Milwaukee, Wis.
Lourie Mfg. Co., Springfield, Ill.
Lucas Machine Tool Co., Cleveland, O.
Oilgear Co., Milwaukee, Wis.
Racine—Racine Tool & Machine Co., Racine, Wis.

MACHINES, BUFFING, ELECTRIC DRIVEN.

(See also, "Machines, Polishing and Buffing.")

Standard Electric Tool Co., Cincinnati, O.
U. S. Electrical Tool Co., The, Cincinnati, Ohio.

MACHINES, BURNISHING.

(See "Barrels, Burnishing" and "Lathes, Buffing and Polishing.")

MACHINES, CASTELLATING AND HEXING.

(See also "Mach'y, Bolt, Nut and Rivet.")

Marvin & Casler Co., Canastota, N. Y.

MACHINES, CENTERING.

Espen-Lucas Machine Works, Philadelphia, Pa.
Hanson-Whitney Machine Co., The, Hartford, Conn.
Hendey Machine Co., Torrington, Conn.
Newton Machine Tool Works, Inc., Philadelphia, Pa.
Niles-Bement-Pond Co., New York, N. Y.
Harnischfeger Corp., The, Milwaukee, Wis.
Porter-Cable Machine Co., Syracuse, N. Y.
Sundstrand Machine Tool Co., Rockford, Ill. "Rockford."
Springfield Machine Tool Co., Springfield, O.
Standard Engineering Works, Pawtucket, R. I. "Standard."
Whiton, D. E., Machine Co., New London, Conn.

MACHINERY, CHAMFERING.

Grant—Grant Mfg. & Machine Co., Bridgeport, Conn.

MACHINES, CHASING, THREAD.

Automatic Machine Co., The, Bridgeport, Conn.

MACHINES, CHUCKING.

(See "Lathes, Chucking," and "Lathes, Turret.")

MACHINERY, CLAMP CARRYING.

Billstrom, Nels, J., Rockford, Ill.
Black Bros. Co., The, Mendota, Ill. (hand and power).
Handy Mfg. Co., Chicago, Ill.
Palmer, Albert E., & Sons, Owosso, Mich.

MACHINERY, CLAMPING.

Handy Mfg. Co., Chicago, Ill.
Palmer, A. E., & Sons, Owosso, Mich.

MACHINES, CLEANING, FOR METAL PARTS.

Colt Autosan—Colt's Patent Firearms Mfg. Co., Hartford, Conn.
Crescent—Crescent Washing Machine Co., New York, N. Y.
No-Dust—No-Dust Drying Machine Co., Providence, R. I.

MACHINES, CONDUCTOR PIPE AND EAVE TROUGH.

Canton Foundry & Machine Co., Canton, O.
Heartley Machine, Variety Iron & Tool Works, Toledo, Ohio.
Niagara Machine & Tool Works, Buffalo, N. Y.

MACHINES, COPING.

Chambersburg Engineering Co., Chambersburg, Pa.
Cleveland Punch & Shear Works Co., Cleveland, O.
Glor, W. J., Cleveland, O.
Hilles & Jones—Consolidated Machine Tool Corp. of America, New York, N. Y.
Newton Machine Tool Works, Inc., Philadelphia, Pa.
Pels, Henry, & Co., New York, N. Y.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Williams, White & Co., Moline, Ill.

MACHINES, CRIMPING, SHEET METAL AND WIRE.

Ohl—Geo. A. Ohl & Co., Newark, N. J.
Bliss—E. W. Bliss Co., Brooklyn, N. Y.
Quickwork—The Quickwork Co., St. Marys, O.

MACHINES, CUTTING-OFF, METAL.

Abrasive Metal—Gilman & Son., Springfield, Vt.
Atkins, E. C., & Co., Inc., Indianapolis, Ind.
Bardons & Oliver, Cleveland, O.
Billings & Spencer Co., Hartford, Conn.
Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa
Brown & Sharpe Mfg. Co., Providence, R. I.
Burke Machine Tool Co., Conneaut, O.
Burr, John T., & Sons, Brooklyn, N. Y.
Cleveland Punch & Shear Works Co., Cleveland, O
Cochrane-Bly Co., Rochester, N. Y.
Espen-Lucas Machine Works, Philadelphia, Pa.
Etna Machine Co., The, Toledo, O.
Fawcus Machine Co., Pittsburgh, Pa.
Fox Machine Co., Jackson, Mich.
Gorton Machine Co., Geo., Racine, Wis. (high speed)
Heartley Machine, Variety & Tool Works, Toledo, Ohio.
Langelier Mfg. Co., Cranston, R. I.
Mann Corporation, Kankakee, Ill.
McCabe, J. J., Lathe & Machinery Corp., New York, N. Y.
Milbrand—The Henry G. Thompson & Son Co., New Haven, Conn.
Modern Machine Tool Co., Jackson, Mich.
Newton—Newton Machine Tool Works, Inc., Philadelphia, Pa. (cold saw).
Niles-Bement-Pond Co., New York, N. Y.
Oster Mfg. Co., The, Cleveland, O.
Quickwork Company, The, St. Marys, O.
Racine—Racine Tool & Machine Co., Racine, Wis.
Sellers, Wm., & Co., Inc., Philadelphia, Pa.
Sellew—Sellew Machine Tool Co., Pawtucket, R. I.
United States Machine Co., Williamsport, Pa. (saw)

MACHINES, CYLINDER BORING.

Barrett Machine Tool Co., Meadville, Pa. "Barrett."
Baush Machine Tool Co., Springfield, Mass.
Beaman & Smith—Manning, Maxwell & Moore, Inc. New York, N. Y.
Cincinnati Borhonizing—The John Steptoe Co., Cincinnati, O.
Defiance Machine Works, Defiance, Ohio.
Foote-Burt Co., The, Cleveland, O.
Hole Hog—Moline Tool Co., Moline, Ill.
Ingersoll Milling Machine Co., The, Rockford, Ill.
It's a Baker—Baker Bros., Toledo, O.
Manning, Maxwell & Moore, Inc., New York, N. Y.
Newton Machine Tool Works, Inc., Philadelphia, Pa.
Niles-Bement-Pond Co., New York, N. Y.
Pedrick Tool & Machine Co., Philadelphia, Pa.
Sellers, William, & Co., Inc., Philadelphia, Pa.
Whitney, Baxter D., & Son, Winchendon, Mass.

MACHINES, DIE FILING AND MILLING.

Cochrane-Bly Company, Rochester, N. Y.
Hartford—The Robinson Tool Works, Inc., Waterbury, Conn.
Haskins—R. G. Haskins Co., Chicago, Ill.
Illinois—Illinois Tool Works, Chicago, Ill.
Oliver of Adrian—Oliver Instrument Co., The, Adrian, Mich.
Thurco—Thurston Mfg. Co., Providence, R. I.

MACHINES, DIE SINKING.

Reed-Prentice Corp., Worcester, Mass. "Becker."
Coates Clipper Mfg. Co., Worcester, Mass.
Haskins, R. G., Co., Chicago, Ill.
Jackson—Jackson Machine Tool Co., Jackson, Mich.
Keller Mechanical Engineering Co., Brooklyn, N. Y.
Modern Mfg. Co., Bridgeport, Conn.

MACHINERY, DITCHING.

American—American Hoist & Derrick Co., St. Paul, Minn. (railroad).
Bay City Dredge Works, Bay City, Mich.
Browning Crane Co., The, Cleveland, O. "Browning."
Buckeye—Buckeye Traction Ditcher Co., Findlay, O.
Gade—C. L. Gade, Iowa Falls, Ia.
Hayward—The Hayward Co., New York, N. Y.
Keystone—Keystone Driller Co., Beaver Falls, Pa.
Link Belt Company, Chicago, Ill.
Marion Steam Shovel Co., The, Marion, Ohio.
Martin—Owensboro Ditcher & Grader Co., Inc., Owensboro, Ky.
Parsons—The Parsons Co., Newton, Ia.

MACHINES, DOWELING.

Bell—The Bell Machine Co., Oshkosh, Wis.
Goodell-Pratt Co., Greenfield, Mass.
Tannewitz Works, The, Grand Rapids, Mich.

MACHINES, DRAG SAW.

Hoosier—The Sinker-Davis Co., Indianapolis, Ind.
Hill-Curtis Co., Kalamazoo, Mich.

MACHINES, DRILLING, AUTOMATIC.

Avey—The Avey Drilling Machine Co., Covington, Ky.
Champion Blower & Forge Co., The, Lancaster, Pa.
It's a Baker—Baker Bros., Toledo, O.
Jones Drill & Specialty Corp., New York, N. Y.
Manning, Maxwell & Moore, Inc., New York, N. Y.
United States Electrical Tool Co., The, Cincinnati, O.
Wolverine Caster Co., Traverse City, Mich.

MACHINES, DRILLING, BENCH.

Avey Drilling Machine Co., The, Covington, Ky. "Avey."
Barnes, F. W. & John, Co., Rockford, Ill.
Boice-Crane—W. B. & J. E. Boice, Toledo, O.
Boynton & Plummer, Inc., Chester Depot, Vt.
Buffalo Forge Co., Buffalo, N. Y.
Burke Machine Tool Co., The, Conneaut, O.
Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Champion Blower & Forge Co., The, Lancaster, Pa.
Cincinnati Electrical Tool Co., Cincinnati, O. "Cincinnati."
Cinti—W. H. Simmons & Co., Cincinnati, O.
Emco—The Enterprise Machine Tool Co., Chicago, Ill.
Fidelity Electric Co., Lancaster, Pa.
400—Champion Blower & Forge Co., Lancaster, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Hisey—Hisey-Wolf Machine Co., Cincinnati, O.
Hoefer Mfg. Co., Freeport, Ill.
Leland-Gifford Co., Worcester, Mass.
Manning, Maxwell & Moore, Inc., New York, N. Y.
Millers Falls Co., Millers Falls, Mass.
Mundy, J. S., Hoisting Engine Co., Newark, N. J.
Pacific Machine Tool Co., Los Angeles, Calif.
Red Devil—Smith & Hemenway Co., Irvington, N. J.
Reed-Prentice Corp., Worcester, Mass.
Reed Co., Francis, Worcester, Mass.
Rockford Drilling Machine Co., Rockford, Ill.
Rogers, F. L., & Co., Chicago, Ill.
Standard Electric Tool Co., Cincinnati, O.
Stearns & Co., E. C., Syracuse, N. Y.
Stow—Stow Manufacturing Co., Binghamton, N. Y.
United States Electrical Tool Co., The, Cincinnati, O. (motor driven).
Waterston, J. M., Detroit, Mich.
Winterhoff Tool & Machine Co., Elkhart, Ind. "Winterhoff."
Wolverine Caster Co., Traverse City, Mich.
Yankee—North Bros. Mfg. Co., Philadelphia, Pa.

MACHINES, DRILLING, BLACKSMITHS AND POST.

American Foundry & Mfg. Co., St. Louis, Mo.
Aurora Tool Works Co., Aurora, Ind.
Buffalo Forge Co., Buffalo, N. Y.
Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Champion—Champion Blower & Forge Co., Lancaster, Pa.
Crescent—The Crescent Machine Co., Leetonia, O.
Hargrave—Cincinnati Tool Co., Cincinnati, O.
Little Giant—B. B. Noyes Co., Greenfield, Mass.
Reed Co., Francis, Worcester, Mass.
Salem Tool Co., The, Salem, O.

MACHINES, DRILLING, BLAST HOLE.

American Well Works, Aurora, Ill.
Armstrong Mfg. Co., Waterloo, Iowa.
The Clipper—Loomis Machine Co., Tiffin, O.
Cyclone—Sanderson-Cyclone Drill Co., Orrville, O.
Diamond Machine Co., Providence, R. I.
Keystone—Keystone Driller Co., Beaver Falls, Pa.
Salem Tool Co., The, Salem, O.
Schramm—Schramm, Inc., West Chester, Pa.
Star Drilling Machine Co., Akron, O.

MACHINES, DRILLING, BOILERMAKERS.

Cincinnati Bickford Tool Co., Cincinnati, O.
Ingersoll-Rand Co., New York, N. Y.
Niles-Bement-Pond Co., New York, N. Y.

MACHINES—DRILLING, BREAST, CHAIN AND HAND
(See also "Drills, Electrically Driven.")

Chicago Flexible Shaft Co., Chicago, Ill.
Coates Clipper Mfg. Co., Worcester, Mass.
Duff—Upton & Gilman Machine Co., Lowell, Mass
General Electric Co., Schenectady, N. Y.
Goodell-Pratt Co., Greenfield, Mass. (plain and ratchet).
Helwig Mfg. Co., St. Paul, Minn.
Hisey—Hisey-Wolf Machine Co., Cincinnati, O.
Irvington Mfg. Co., Irvington, N. J.
Leetonia Tool Co., Leetonia, Ohio.
Millers Falls Co., Millers Falls, Mass.
Peck, Stow & Wilcox Co., The, Southington, Conn.
Pilot—Consolidated Tool Works, Inc., New York, N. Y.
Rapid Fire—Steward & Romaine Mfg. Co., Philadelphia, Pa.
Red Devil—Smith & Hemenway Co., Irvington, N. J.
Standard Electrical Tool Co., The, Cincinnati, O.
Stow Mfg. Co., Binghamton, N. Y.
Willey—Jas. Clark, Jr., Electric Co., Louisville, Ky
Yankee—North Bros Mfg. Co., Philadelphia, Pa.

MACHINES, DRILLING, CLAMP.

Goodell-Pratt Co., Greenfield, Mass.
Reed Co., Francis, Worcester, Mass.
Stow Mfg. Co., Binghamton, N. Y.

MACHINES, DRILLING, CLOSE QUARTER.

Chicago Pneumatic Tool Co., New York, N. Y. "Little Giant."
Cleveland Pneumatic Tool Co., The, Cleveland, O.
Hisey—Hisey-Wolf Machine Co., Cincinnati, O.

MACHINES, DRILLING, COAL.

Chicago Pneumatic Tool Co., New York, N. Y. "Little Giant."
Clark—James Clark, Jr., Electric Co., Inc., Louisville, Ky.
Clipper, Dreadnaught, Turbro—The Denver Rock Drill Mfg. Co., Denver, Colo.
Clipper—Loomis Machine Co., Tiffin, O.
Cincinnati Electrical Tool Co., Cincinnati, O.
Howells Mining Drill Co., Plymouth, Pa.
Ingersoll-Rand Co., New York.
Jeffrey Mfg. Co., The, Columbus, O.
Leetonia Tool Co., The, Leetonia, O.
Salem Tool Co., The, Salem, O.
Scranton—Scranton Electric Construction Co., Scranton, Pa.

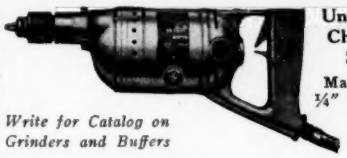
MACHINES, DRILLING, CORE.

Calyx—Ingersoll-Rand Co., New York, N. Y.
Crafts, Arthur A., & Co., Boston, Mass.

MACHINES, DRILLING, ELECTRIC DRIVEN, PORTABLE.

Arnold Electric Tool Co., Inc., New York, N. Y.
Automatic Electric Tool Co., Cincinnati, O.
Bilt-Rite—Bilt-Rite Equipment Co., Worcester, Mass.
B. & D.—Black & Decker Mfg. Co., Towson, Md.
Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa.
Chicago Pneumatic Tool Co., New York, N. Y. "Little Giant."
Cincinnati—Cincinnati Electrical Tool Co., Cincinnati, O.
Clark, Jas., Jr., Electric Co., Louisville, Ky.
Coates—Coates Clipper Mfg. Co., Worcester, Mass.
Dumore—Wisconsin Electric Co., Racine, Wis.
Elecdrive—Elecdrive Mfg. Co., Inc., Syracuse, N. Y.
Fein—J. L. Gleason & Co., Boston, Mass.
Glow Electric Co., The, Cincinnati, O.
General Electric Co., Schenectady, N. Y.
Goodell-Pratt Co., Greenfield, Mass.
Haskins—R. G. Haskins Co., Chicago, Ill.
Hisey—Hisey-Wolf Machine Co., Cincinnati, O.
Howells Mining Drill Co., Plymouth, Pa.
Ideal—Neil & Smith Electric Co., The, Cincinnati, Ohio.
Jones—Consolidated Instrument Co. of America, Inc., New York, N. Y.

"STANDARD"
BALL BEARING DRILL



Universal Motor
Chrome Nickel
Steel Gears

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Write for Catalog on Grinders and Buffers

THE STANDARD ELECTRICAL TOOL CO.
Cincinnati, Ohio

Jones—Jones Drill & Specialty Corp., New York, N. Y.
Lovejoy Tool Works, Chicago, Ill.
Millers Falls Company, Millers Falls, Mass.
Milwaukee Electric Tool Co., Milwaukee, Wis.
Nihlson Machine Works, Chicago, Ill.
One-Hand-Y—Knight Engineering & Sales Co., Cicero, Ill.
Peerless—Cincinnati Electrical Tool Co., Cincinnati, O.
Pioneer—Louisville Electric Mfg. Co., Louisville, Ky.
Power King Drill Corp., Warsaw, Ind.
Rogers, F. L., & Co., Chicago, Ill. "Wodack."
Saphill Electric Tool Co., Galesburg, Ill.
Speed Way—Electro-Magnetic Tool Co., Cicero, Ill. (Attachments: Saw table, grinder, buffer and wire brush.)
Standard Electric Tool Co., The, Cincinnati, O.
Stow Mfg. Co., Binghamton, N. Y. "Stow."
Temco—The Temco Electric Motor Co., Leipsic, O.
Thor—Independent Pneumatic Tool Co., Chicago, Il.
Titan—Argyle Railway Supply Co., Chicago, Ill.
United States Electrical Tool Co., The, Cincinnati, O.
Van Dorn Electric Tool Co., Cleveland, O.
Wodack—Wodack Electric Tool Corp., Chicago, Ill.

MACHINES, DRILLING, ELECTRIC, FLOOR.

Cincinnati—Cincinnati Electrical Tool Co., Cincinnati, O.
Hisey-Wolf Machine Co., Cincinnati, O
Standard Electric Tool Co., Cincinnati, O.

MACHINES, DRILLING, FLEXIBLE SHAFT.

Biax—Biax Flexible Shaft Co., New York, N. Y.
Chicago Flexible Shaft Co., Chicago, Ill. "Stewart."
C. L. P.—The C. L. P. Electric Co, New York, N. Y.
Gem Mfg. Co., Pittsburgh, Pa. "Gem."
Stow Mfg. Co., Inc., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.

MACHINES, DRILLING, FOOT POWER.

Goodell-Pratt Co., Greenfield, Mass.
Royersford Foundry & Machine Co., Royersford, Pa.

MACHINES, DRILLING, FRICTION DISC DRIVE.

Allen Friction—Allen Wrench & Tool Co., Providence, R. I.
All Geared—Barnes Drill Co., Rockford, Ill.

MACHINES, DRILLING, HEAVY DUTY.

Avey—Avey Drilling Machine Co., Covington, Ky.
Baker Bros., Toledo, O. "It's a Baker."
Burke Machine Tool Co., The, Conneaut, O.
Colburn—Colburn Machine Tool Co., Cleveland, O.
Defiance Machine Works, Defiance, Ohio.
Footburt—The Foote-Burt Co., Cleveland, O.
Fosdick Machine Tool Co., The, Cincinnati, O.
Hisey—Hisey-Wolf Machine Co., Cincinnati, O.
Ingersoll Milling Machine Co., The, Rockford, Ill.
Manning, Maxwell & Moore, Inc., New York, N. Y.

MACHINES, DRILLING, HORIZONTAL.

Barnes—W. F. & John Barnes Co., Rockford, Ill.
Carroll Foundry & Machine Tool Co., Bucyrus, O.
G. & L.—Giddings & Lewis Machine Tool Co., Fond du Lac, Wis.
Gisholt—Gisholt Machine Co., Madison, Wis.
Ingersoll Milling Machine Co., The, Rockford, Ill.
Manning, Maxwell & Moore, Inc., New York, N. Y.
Milwaukee Electric Crane & Mfg. Co., Milwaukee, Wis. "Milwaukee."
Morris—Morris Machine Tool Co., Cincinnati, Ohio.
Harnischfeger Corp., The, Milwaukee, Wis.
Rockford Drilling Machine Co., Rockford, Ill.
Sundstrand Machine Tool Co., Rockford, Ill., "Rockford."
Sellers, William, & Co, Inc., Philadelphia, Pa.

MACHINES, DRILLING, JOIST.

Bowlus Mfg. Co., The, Springfield, O.
Dikeman Mfg. Co., Norwalk, Conn.
Jones, T. W., Tool Co., New York, N. Y.

MACHINES, DRILLING, MULTIPLE SPINDLE OR GANG.

American Tool Works Co., Cincinnati, O.
All Geared—Barnes Drill Co., Inc., Rockford, Ill. (and reaming).
Avey—Avey Drilling Machine Co., Covington, Ky.
Barnes Co., W. F. & John, Rockford, Ill.
Baush—Baush Machine Tool Co., Springfield, Mass.
Buhr—The Blodgett Engineering & Tool Co., Detroit, Mich.
Carlton Machine Tool Co., Cincinnati, Ohio.
Cincinnati Bickford Tool Co., The, Oakley, O.
Cleveland Punch & Shear Work Co., Cleveland, O
Cleveland—The Simplex Machine Tool Co., Cleveland, O.
Colburn Machine Tool Co., Cleveland, O.
Defiance Machine Works, The, Defiance, O.
Dreses' Machine Tool Co., Cincinnati, O.
Dwight Slate—Standard Mfg. Co., Bridgeport, Conn.
Edlund Machinery Co., Inc., Cortland, N. Y.
Fenn Mfg. Co., Hartford, Conn. "Fenn."
Footburt—The Foote-Burt Co., Cleveland, O.
Fosdick—The Fosdick Machine Tool Co., Cincinnati, O.
Fox Machine Co., Inc., Jackson, Mich.
Greenlee Bros. & Co., Rockford, Ill.
Hamilton Machine Tool Co., The, Hamilton, O.
Hardinge Bros., Inc., Chicago, Ill.
Harnischfeger Corp., The, Milwaukee Wis.
Harrington Company, Philadelphia.
Hill—Thomas Spacing Machine Co., Pittsburg, Pa.
Henry & Wright Mfg. Co., Hartford, Conn.
Hilbert—Hilbert Machine Co., Cincinnati, O.
Hoefer Mfg. Co., Freeport, Ill.
Hole Hog—Moline Tool Co., Moline, Ill.
Ingersoll Milling Machine Co., The, Rockford, Ill.
It's a Baker—Baker Bros., Toledo, O.
Kingsbury Mfg. Co., Keene, N. H.
Langelier Mfg. Co., Cranston, R. I.
Leland-Gifford Co., Worcester, Mass.
M-G—Meldrum-Gabrielson Corp., Syracuse, N. Y.
McCabe, J. J., Lathe & Machinery Corp., New York, N. Y.
Mechanics—Rockford Machine Tool Co., Rockford, Ill.
Michigan—National Foundry & Machine Co., Ypsilanti, Mich.
Mueller—Mueller Machine Tool Co., Cincinnati, O.
Namco—National Acme Co., The, Cleveland, O.
Natco—National Automatic Tool Co., Richmond Ind.
Newton Machine Tool Works, Inc., Philadelphia.
Niles-Bement-Pond Co., New York, N. Y.
Peerless—Cincinnati Electrical Tool Co., Cincinnati, O.
Reed Co., Francis, Worcester, Mass.
Reed-Prentice Corp., Worcester, Mass.
Richards Machinery Co., Milwaukee, Wis.
Rockford Drilling Machine Co., Rockford, Ill.
Sellers, Wm., & Co., Inc., Philadelphia, Pa.
Sellew—Sellew Machine Tool Co., Pawtucket, R. I.
Seneca Falls Machine Co., Seneca Falls, N. Y.
Sibley Machine Co., South Bend, Ind.
Standard Mfg. Co., Bridgeport, Conn.
Taylor—Robbins Machine Co., Worcester, Mass.
Taylor & Fenn Co., Hartford, Conn.
Turner Machine Co., Danbury, Conn.
Viktor—The Henry & Wright Mfg. Co., Hartford, Conn. (upright).
Wells, Frank L., Co., Kenosha, Wis.
Willey—Jas. Clark, Jr., Electric Co., Louisville, Ky
Wolverine Caster Co., Traverse City, Mich.

MACHINES, DRILLING, PNEUMATIC.

Allen Co., John F., New York, N. Y.
American Air Compressor Works, Brooklyn, N. Y.
Baird Pneumatic Tool Co., Topeka, Kan.
Calyx—Ingersoll-Rand Co., New York, N. Y
Chicago Pneumatic Tool Co., New York, N. Y. "Little Giant," "Red Giant."
Clipper, Dreadnaught, Turbro—Denver Rock Drill Mfg. Co., Denver, Colo.
Crown & Imperial—Ingersoll-Rand Co., New York.
Helwig—Helwig Mfg. Co., St. Paul, Minn.
Hercules—Buckeye Portable Tool Co., Dayton, O.
Kotten Machine Co., Jersey City, N. J.
Master—Wm. H. Keller, Inc., Grand Haven, Mich.
Thor—Independent Pneumatic Tool Co., Chicago, Ill.

MACHINES, DRILLING, PROSPECTING.

American Well Works, Aurora, Ill.
Armstrong, Kelly Tanneyhill, Waterloo—Armstrong Mfg. Co., Waterloo, Iowa.
Calyx Diamondless—Ingersoll-Rand Co., New York, N. Y.
Clipper—Loomis Machine Co., Tiffin, O.
Crown & Imperial—Ingersoll-Rand Co., New York
Cyclone—The Cyclone Drill Co., Orrville, O.
Denver Rock Drill Mfg. Co., Denver, Colo.
Keystone Driller Co., Beaver Falls, Pa.
Oil Well Supply Co., Pittsburgh, Pa.

MACHINES, DRILLING, RADIAL.

American—The American Tool Works Co., Cincinnati, O.
Avey—Avey Drilling Machine Co., Covington, Ky
Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Carlton Machine Tool Co., Cincinnati, O.
Cincinnati Bickford Tool Co., The, Oakley, Cincinnati, O.
Coates—Coates Clipper Mfg. Co., Worcester, Mass.
Conradson—Conradson Machine Tool Co., Green Bay, Wis.
Fosdick—The Fosdick Machine Tool Co., Cincinnati, O.
Hammond—Hammond Mfg. Co., The, Cleveland, O.
Harnischfeger Corp., The, Milwaukee, Wis.
Hisey—Hisey-Wolf Machine Co., Cincinnati, O.
Hoosier—Hoosier Drilling Machine Co., Goshen, Ind.
McCabe, J. J., Lathe & Mach'y Corp., New York.
Manning, Maxwell & Moore, Inc., New York, N. Y.
Morris—Morris Machine Tool Co., The, Cincinnati, Ohio.
Reed-Prentice Corp., Worcester, Mass.
Sellers, William, & Co., Inc., Philadelphia, Pa.
Taylor & Fenn Co., Hartford, Conn.
United States Electrical Tool Co., The, Cincinnati, O. (portable).
Western Machine Tool Works, Holland, Mich.
Wisconsin—Dauber-Kratsch Co., Oshkosh, Wis.

MACHINES, DRILLING, RAILWAY TRACK.

(See also "Ratchets" and "Drills, Twist.")

Bilt-Rite—Bilt-Rite Equipment Co., Worcester, Mass.
Chicago Pneumatic Tool Co., New York, N. Y. "Little Giant."
Climax, Cook—National Standard Co., Niles, Mich.
Fairbanks, Morse & Co., Chicago, Ill.
Giant—The Keystone Mfg. Co., Buffalo, N. Y (ratchet).
Goodell-Pratt Co., Greenfield, Mass.
Hyduty Buda, Paulus-Wilson, Wilson—The Buda Co., Harvey, Ill.
Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Lovejoy Tool Works, Chicago, Ill.
Millers Falls Co., Millers Falls, Mass.
Standard—Aldon Company, The, Chicago, Ill.
Stow Mfg. Co., Inc., Binghamton, N. Y.

MACHINES, DRILLING, ROCK, AIR, STEAM AND ELECTRIC.

Busy Bee—McKiernan-Terry Drill Co., New York
Chicago Pneumatic Tool Co., New York, N. Y. "C. P."
Clark, H. W., Co., Mattoon, Ill.
Cleveland—The Cleveland Rock Drill Co., Cleveland, O.
Clipper, Dreadnaught, Turbro—Denver Rock Drill Manufacturing Co., Denver, Colo. (air and steam).
Clipper—Loomis Machine Co., Tiffin, O
Cochise Rock Drill Mfg. Co., Los Angeles, Cal.
General Electric Co., Schenectady, N. Y.
Hardsocg—Hardsocg Wonder Drill Co., Ottumwa, Iowa.
Hisey—Hisey-Wolf Machine Co., Cincinnati, O.
Howells—Howells Mining Drill Co., Plymouth, Pa.
Ingersoll-Rand Co., New York, N. Y. Trade names, Butterfly, Clinkerbreaker, Concrete Breaker, Electric Air, I. R. Water Hammer Drifter, Jackhamer, Leyner Ingersoll, Little Giant, New Ingersoll, Sergeant, Sergeant Auxiliary Valve, Stopehamer, Submarine, Temple.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Nixon Ratchet—Nixon Mining Drill Co., Chattanooga, Tenn.
Pneumelectric—The Pneumelectric Corp., Syracuse, N. Y.
Schramm—Schramm, Inc., West Chester, Pa.
Scranton—Scranton Electric Construction Co., Scranton, Pa.
Sebco—Star Expansion Bolt Co., New York, N. Y.
Standard Diamond Drill Co., Chicago, Ill.
Thor—Independent Pneumatic Tool Co., Chicago, Ill.
Union—The Martin Hardsocg Co., Pittsburgh, Pa.
Wood—Morris Wood & Sons, Chicago, Ill.

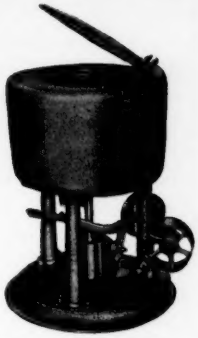
MACHINES, DRILLING, SENSITIVE.

Ames—B. C. Ames & Co., Waltham, Mass.
Avey—Avey Drilling Machine Co., Covington, Ky.
Boice, William B., & John E., Toledo.
Burke—The Burke Machine Tool Co., Conneaut, O.
Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Carlton Machine Tool Co., Cincinnati, O.
Clark—James Clark, Jr., Electric Co., Inc., Louisville, Ky.
Champion Blower & Forge Co., The, Lancaster, Pa.
Dumore—Wisconsin Electric Co., Racine, Wis.
Edlund—Edlund Machinery Co., Inc., Cortland, N. Y.
Elgin Tool Works, Elgin, Ill.

CENTRIFUGAL DRYING OUT

An extractor with special straight basket and inner basket for drying small pieces that have been coated, dipped, japanned, painted, plated or washed

Removable Basket



Established 1843

AMERICAN TOOL & MACHINE CO.

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BOSTON

Fox Machine Co., Jackson, Mich.
Fosdick—The Fosdick Machine Tool Co., Cincinnati, O.
Gardam & Son, Wm., New York, N. Y.
General Electric Co., Schenectady, N. Y.
Henry & Wright Mfg. Co., Hartford, Conn.
High Speed Hammer Co., Rochester, N. Y.
Hoefer Mfg. Co., Freeport, Ill.
Hoysradt & Case, Kingston, N. Y.
Kingsbury—Kingsbury Mfg. Co., Keene, N. H. (semi-automatic).
Knight, W. B., Machine Co., St. Louis, Mo.
Langelier Mfg. Co., Cranston, R. I.
Leiman Bros., New York, N. Y. (jewelers).
Leland-Gifford Co., Worcester, Mass.
Merit Oil Equipment Co., Cleveland, O.
Manning, Maxwell & Moore, Inc., New York, N. Y.
Muehlmatt—Adolph Muehlmatt, Cincinnati, O.
Myers—Myers Machine Tool Corp, Columbus, O.
Oliver Mfg. Co., The W. W., Buffalo, N. Y.
Olmsted's—L. H. Olmsted Mfg. Co., New York, N. Y.
Pecorp—Providence Engineering Corp., Providence, R. I.
Pioneer—Louisville Electric Mfg. Co., Louisville, Ky.
Reed, H. G. Barr—Francis Reed Co., Worcester, Mass.
Royersford Foundry & Machine Co., Royersford, Pa. "Excelsior."
Sibley—Sibley Machine Co., South Bend, Ind.
Sigourney Tool Co., The, Hartford, Conn.
Silver Mfg. Co., Salem, O. "Silver."
Stark—Stark Tool Co., Waltham, Mass.
Stow Mfg. Co., Binghamton, N. Y.
U. S.—United States Machine Tool Co., Cincinnati, O.
Western Machine Tool Works, Holland, Mich.
Willey—Jas. Clark, Jr., Electric Co., Louisville, Ky.

MACHINES, DRILLING, SPRING HAMMER.

Phillips Drill Co., Chicago, Ill.

MACHINES, DRILLING AND TAPPING, FOR GAS AND WATER MAINS.

All Geared—Barnes Drill Co., Rockford, Ill.
Clark, H. W., Co., Mattoon, Ill.
Hall's Patent—Walworth Company, Boston, Mass.
Hays Mfg. Co., Erie, Pa. (Trade names—Crow, Daisy, Hays, Eureka, New Eclipse, Payne's Patent Old Style.)
Modern Iron Works, Quincy, Ill.
Mueller Co., Decatur, Ill.
Saunders, D., Sons, Inc., Yonkers, N. Y.
Smith, A. D., Mfg. Co., East Orange, Mass.
Water Works Equipment Co. New York, N. Y.

MACHINES, DRILLING, TOOL ROOM.

Albany Hardware Specialty Mfg. Co., Albany, Wis.

MACHINES, DRILLING, UPRIGHT.

All Geared—Barnes Drill Co., Rockford, Ill.
Aurora Tool Works, The, Aurora, Ind.

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16" to 30" swing inclusive. Stationary and sliding head

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Barnes, W. F. & John, Co., Rockford, Ill.
Buffalo Forge Co., Buffalo, N. Y. (geared).
Canedy-Otto—Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Champion Blower & Forge Co., The, Lancaster, Pa. "Lancaster."
Cincinnati Bickford Tool Co., The, Oakley, O.
Cinti—W. H. Simmons & Co., Cincinnati, O.
Colburn Machine Tool Co., Cleveland, O.
Dauber-Kratsch Co., Oshkosh, Wis. "Wisconsin."
Fosdick—Fosdick Machine Tool Co., Cincinnati, O.
Gould & Eberhardt, Newark, N. J.
Hamilton Machine Tool Co., The, Hamilton, O.
Harrington Company, Philadelphia, Pa.
Hoefer—Hoefer Mfg. Co., Freeport, Ill.
It's a Baker—Baker Bros., Toledo, O.
Langelier Mfg. Co., Cranston, R. I.
Manning, Maxwell & Moore, Inc., New York, N. Y.
Mechanics—Rockford Machine Tool Co., Rockford, Ill.
Milwaukee—Richards Machinery Co., Milwaukee, Wis.
Niles-Bement-Pond Co., New York, N. Y.
Olmsted's—L. H. Olmsted Mfg. Co., New York, N. Y.
Rockford Drilling Machine Co., Rockford, Ill.
Rockford Machine Tool Co., Rockford, Ill.
Sellers, Wm., & Co., Inc., Philadelphia, Pa.
Sibley Machine Co., South Bend, Ind.
Sipp—Sipp Machine Co., Paterson, N. J.
Snyder, J. E., & Son, Worcester, Mass.
Stark—Stark Tool Co., Waltham, Mass.
Superior, Kokomo High Speed—Superior Machine Tool Co., The, Kokomo, Ind.
Weigel Machine Tool Co., Peru, Ind.
Whitney Mfg. Co., Hartford, Conn.

MACHINES, DRYING OUT, CENTRIFUGAL.

American Tool & Machine Co., Boston, Mass.
Baird Machine Co., Bridgeport, Conn.
Black-Clawson Co., The, Hamilton, Ohio.
Link-Belt Company, Chicago and Philadelphia.
Ruggles-Coles Engineering Co., New York, N. Y.
Tolhurst Machine Wks., Troy, N. Y.

MACHINERY, EDGING.

Quickwork Company, The, St. Marys, O.

MACHINES, EMBOSSING ON METAL.

Keller Mechanical Engraving Co., Brooklyn, N. Y.

MACHINES, ENGRAVING ON METAL.

Etchograph—William Brewster Co., Inc., New York, N. Y.
Gorton, George, Machine Co., Racine, Wis.
Preis, H. P., & Co., Inc., Newark, N. J.

MACHINES, FILING, SAWMILL AND MACHINE SHOP.

Ames—B. C. Ames & Co., Waltham, Mass.
Armstrong Manufacturing Co., Portland, Ore.
Black Diamond Saw & Machine Works, Natick, Mass.
Cochrane-Bly Co., Rochester, N. Y.
Colton—Arthur Colton Co., Detroit, Mich.
Do-All Appliance Co., Chicago, Ill. "Do-All."
Hanchett—Machinery Co. of America, Big Rapids, Mich.
Hartford—Robinson Tool Works, Inc., The, Waterbury, Conn. (die).
Henderson, W. K., Iron Works & Supply Co., Shreveport, La.
Henry & Wright Mfg. Co., Hartford, Conn.
Holmes—Holmes Mfg. Co., Shelton, Conn.
Illinois Tool Works, Chicago, Ill.
Manning, Maxwell & Moore, Inc., New York, N. Y.

Noble & Westbrook Mfg. Co., Hartford, Conn.
La Porte Machine & Tool Co., Inc., La Porte, Ind.
Strand & Co., N. A., Chicago, Ill.

MACHINES, FLANGING.

Bethlehem Steel Co., Bethlehem, Pa.
Bliss, E. W., & Co., Brooklyn, N. Y.
Chambersburg Engineering Co., The, Philadelphia, Pa.
Grant—Grant Mfg. & Machine Co., Bridgeport, Conn.
Hydraulic Press Mfg. Co., The, Columbus, O. "H.P.M."
Lovekin—Lovekin Pipe Expanding & Flanging Machine Co., Philadelphia, Pa.
Munroe, R., & Sons Mfg. Corp., Pittsburgh, Pa.
Quickwork Company, The, St. Marys, O.
Wood, R. D., & Co., Philadelphia, Pa.

MACHINES, FLANGING, LEAD PIPE.

Mueller Co., Decatur, Ill.

MACHINES, FLOOR SURFACING, SCRUBBING AND POLISHING.

American Universal—The American Floor Surfacing Machine Co., Toledo, O.
National—National Scrubbing Machine Co., Chicago, Ill.
Kent Company, Inc., Rome, N. Y. "J. C. M.," "Kent," "Utility."

MACHINES, FLUE WELDING.

(See also "Welders, Flue Pneumatic.")

McLeod Co., The, Cincinnati, O.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Stroud, E. H., & Co., Chicago, Ill.

MACHINES, FORGING.

(See also "Presses, Forging")

Acme Machinery Co., Cleveland, O.
Ajax Mfg. Co., Cleveland, O.
Badger—Rock River Machine Co., Janesville, Wis.
Bliss Co., E. W., Brooklyn, N. Y.
Cleveland Knife & Forge Co., Cleveland, O.
Hydraulic Press Mfg. Co., The, Columbus, O. "H.P.M."
Manning, Maxwell & Moore, Inc., New York, N. Y.
Merrill Bros., Brooklyn, N. Y.
Mesta Machine Co., Pittsburg, Pa.
Morgan Engineering Co., Alliance, O.
Toledo Machine & Tool Co., Toledo, O.
United Engineering & Foundry Co., Pittsburgh, Pa.
Williams, White & Co., Moline, Ill.

MACHINES, FORMING AND BENDING.

Ajax Mfg. Co., Cleveland, O.
Atlas Machine Co., The, Waterbury, Conn.
Badger—Rock River Machine Co., Janesville, Wis.
Badger State Machine Works, Beloit, Wis.
Baird Machine Co., The, Bridgeport, Conn.
Bliss, E. W., Co., Brooklyn, N. Y.
Chambersburg Engineering Co., Chambersburg, Pa.
Ferracute Machine Co., Bridgeton, N. J.
Heartley Machine, Variety Iron & Tool Works, Toledo, O.
Hinman, D. A., & Co., Sandwich, Ill.
Hydraulic Press Mfg. Co., The, Columbus, O. "H.P.M."
Konigslow, E., Stamping and Tool Works, Cleveland, O.
Langelier Mfg. Co., Cranston, R. I.
Niagara Machine & Tool Works, Buffalo, N. Y.
Quickwork—The Quickwork Co., St. Marys, O.
Shuster, F. B., Co., New Haven, Conn.
Stoll, D. H., Co., Inc., Buffalo, N. Y.
Watson-Stillman Co., New York, N. Y.

MACHINES, GEAR CUTTING AND MILLING.

Adams, Farwell—The Adams Co., Dubuque, Ia.
Barber-Colman Co., Rockford, Ill.
Bilton—Bilton Machine Tool Co., Bridgeport, Conn.
Bridgeport Machine Tool Works, Rochester, N. Y.
Brown & Sharpe Mfg. Co., Providence, R. I.
Browning—The Machine Products Co., Cleveland, O.
Cincinnati Gear Cutting Machine Co., The, Cincinnati, O.
Cincinnati Grinder Co., Cincinnati, Ohio.
Cincinnati Shaper Co., Cincinnati, O.
Fellows Gear Shaper Co., The, Springfield, Vt.
Flather Mfg. Co., The, Nashua, N. H.
Gleason—Gleason Works, The, Rochester, N. Y.
Hercules—Hercules Machine & Tool Co., Inc., New York, N. Y.
High Duty—Gould & Eberhardt, Newark, N. J.
Lees-Bradner Co., The, Cleveland, O.
M-C—Meisselbach-Catucci Mfg. Co., Newark, N. J.
Manning, Maxwell & Moore, Inc., New York, N. Y.
Newark Gear Cutting Machine Co., Newark, N. J.
Newton—Newton Machine Tool Works, Inc., Philadelphia, Pa.
Niles-Bement-Pond Co., New York, N. Y.
Putnam Machine Co., Fitchburg, Mass.
Radial Duplex—Gould & Eberhardt, Newark, N. J.
Sloan & Chace—The Rice Machine Tool Corp., Newark, N. J.
Upton & Gilman Machine Co., Lowell, Mass.
Whiton, D. E., Machine Co., New London, Conn.

MACHINES, GEAR HOBBING AND GEAR SHARPENING.

Barber Colman Co., Rockford, Ill.

MACHINES, GEAR TESTING.

Brown & Sharpe Mfg. Co., Providence, R. I.
Farwell—Adams Co., Dubuque, Ia.
Gisholt—Gisholt Machine Co., Madison, Wis.
Gleason Works, The, Rochester, N. Y.
Morse Twist Drill & Machine Co., New Bedford, Mass

MACHINERY, GLUE SPREADING.

Bell—The Bell Machine Co., Oshkosh, Wis.
Towsley, John T., Mfg. Co., Cincinnati, O.

MACHINES, GRADUATING.

Hope, John, & Sons, Engraving & Mfg. Co., Providence, R. I.
LeBlond, R. K., Machine Tool Co., The, Cincinnati, O.
Modern—Consolidated Machine Tool Corp. of America, New York, N. Y.
Noble & Westbrook Mfg. Co., Hartford, Conn.
Oesterlein Machine Co., Cincinnati, O.

MACHINES, GRINDING.

(See "Grinders, Tool.")

MACHINES, JOGGLING.

Quickwork Company, The, St. Marys, O.

MACHINES, KEY MAKING.

Beisser Key Machine Co., Detroit, Mich.

MACHINES, KEY SEATING & GROOVING.

Bilton Machine Tool Co., The, Bridgeport, Conn.
Bucher-Smith—Bucher-Smith Co., The, East Liverpool, O.
Burr—John T. Burr & Son, Brooklyn, N. Y.
Catlin—Chattanooga Machinery Co., Chattanooga, Tenn.
Davis Keyseater Co., Rochester, N. Y.
Giant—Mitts & Merrill, Saginaw, Mich.
It's a Baker—Baker Bros., Toledo, O.
Lapointe, J. N., Co., New London, Conn.
Lapointe Machine Tool Co., Hudson, Mass.
Manning, Maxwell & Moore, Inc., New York, N. Y.
Morse Twist Drill & Machine Co., New Bedford, Mass
Morton—Morton Mfg. Co., Muskegon Heights, Mich.
National Machine Tool Co., Cincinnati, O. "National."
Newton Machine Tool Works, Inc., Philadelphia, Pa.
Niles-Bement-Pond Co., New York, N. Y.
Novirowork—Novelty Iron Works Co., Dyersville, Ia.
Racine—Racine Tool & Machine Co., Racine, Wis.
S-A—Stephens-Adamson Mfg. Co., Aurora, Ill. (portable).
Whitney Mfg. Co., Hartford, Conn. (Woodruff system).

MACHINES, KEY, YALE TYPE.

Philadelphia Pin Key Duplicating Co., Inc., Philadelphia, Pa.

MACHINES, LAPPING

Arter—The Arter Grinding Machine Co., Worcester, Mass.
Bethel-Player—Bethel Player Co., Westboro, Mass.
Ingersoll Milling Machine Co., Rockford, Ill.
Moline Tool Co., Moline, Ill.
Wardwell—Wardwell Mfg. Co., Cleveland, O.

MACHINERY, LEATHER WORKING.

American Tool & Machine Co., Boston, Mass.
Baker, G. W., Machine Co., Wilmington, Del.
Evans, John, Sons, Inc., Philadelphia, Pa.
Slocomb, F. F. & Co., Wilmington, Del.
Standard Leather Machinery Sales Co., Chicago, Ill.
Turner Tanning Machinery Co., Peabody, Mass.

MACHINERY, LOGGING.

(See also "Engines, Hoisting," etc.)

Clyde Universal, McGifford, Rapid—Clyde Iron Works, Duluth, Minn.
Flory Mfg. Co., The, Bangor, Pa.
Lidgerwood Mfg. Co., New York, N. Y.
Mundy, J. S., Hoisting Engine Co., Newark, N. J.
Street Brothers Machine Works, Chatanooga, Tenn.

MACHINES FOR MARKING TRADE NAMES, ETC. ON SOLID METAL.

Hjorth Lathe & Tool Co., Boston, Mass.
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Noble & Westbrook Mfg. Co., Hartford, Conn.
Pittsburgh Stamp Co., Pittsburgh, Pa.

MACHINES, MEASURING, LINEAL.

Harris Engineering Co., Bridgeport, Conn.
Tally Meter—Tally Meter Co., Norwich, Conn.

MACHINES, METAL SLITTING.

Atlas Machine Co., The, Waterbury, Conn.
Blake & Johnson Co., The, Waterbury, Conn.
Bliss, E. W., & Co., Brooklyn, N. Y.
Heartley Machine, Variety Iron & Tool Works, Toledo, O.
Quickwork—The Quickwork Co., St. Marys, O.

MACHINES, MILLING.

(See also "Attachments, Milling.")

Adams-Farwell—The Adams Co., Dubuque, Iowa. (hand).
American Milling Machine Co., Cincinnati, O. (plain and universal). "American."
American Tool & Machine Co., Boston, Mass. (Valve).
American Watch Tool Co., Waltham, Mass.
Beaman & Smith—Manning, Maxwell & Moore, Inc., New York, N. Y.
Bilton Machine Tool Co., Bridgeport, Conn. (Trade names—Bilton, Pro-DuctoMatic.)
Brown & Sharpe Mfg. Co., Providence, R. I.
Bullard Machine Tool Co., Bridgeport, Conn. "Maxi-Mills."
Burke's—Burke Machine Tool Co., Conneaut, O.
Carroll Foundry & Machine Tool Co., Bucyrus, O.
Carter & Hakes Machine Co., The, Winsted, Conn.
Cincinnati—Cincinnati Automatic Machine Co., Cincinnati, O.
Cincinnati Milling Machine Co., Cincinnati, Ohio (automatic, duplex, plain, universal and vertical).
Clough's—R. M. Clough, Meriden, Conn. (vertical.)
Cochrane-Bly Co., Rochester, N. Y. (universal and vertical).
Conradson—Conradson Machine Tool Co., Green Bay, Wis.
Davis & Thompson Co., West Allis, Wis. "Davis."
Espen-Lucas Machine Works, Philadelphia, Pa.
Gabrielson—Meldrum-Gabrielson Corp., Syracuse, N. Y.
Gisholt—Gisholt Machine Co., Madison, Wis.
Gooley & Edlund, Cortland, N. Y.
Hendey—The Hendey Machine Co., Torrington, Conn.
Ingersoll Milling Machine Co., The, Rockford, Ill.
Jackson—Jackson Machine Tool Co., Jackson, Mich.
Jeffrey Mfg. Co., Columbus, O.
Jones Machine Tool Works, Philadelphia, Pa.
Kearney & Trecker Corp., Milwaukee, Wis.
Kempsmith—Kempsmith Mfg. Co., Milwaukee, Wis
Knight—W. B. Knight Machinery Co., St. Louis, Mo.
Le Blond—The R. K. Le Blond Machine Tool Co., Cincinnati, Ohio.
McCabe, J. J., Lathe & Mach. Corp., New York, N. Y.
Manning, Maxwell & Moore, Inc., New York, N. Y.
Mecklenburg Iron Works, Charlotte, N. C.
Milwaukee—Kearney & Trecker Corp., Milwaukee, Wis.
Morris—The John B. Morris Machine Tool Co., Cincinnati, O. (Bench Type.)
Morton Mfg. Co., Muskegon Heights, Mich.
Newton—Newton Machine Tool Works, Inc., Philadelphia, Pa.
Niles-Bement-Pond Co., New York, N. Y.
Ohio—The Oesterlein Machine Co., Cincinnati, O.
Pedrick—Pedrick Tool & Machine Co., Philadelphia. (Portable.)
Planetary—The Hall Planetary Co., Philadelphia, Pa. (Thread and form.)
Potter & Johnston Machine Co., Pawtucket, R. I
Precision—Lucas Machine Tool Co., Cleveland, O. (combined horizontal and vertical).
Prescott Co., The, Menominee, Mich.
Reed-Prentice Corp., Worcester, Mass. "Becker."
Sellers, Wm., & Co., Inc., Philadelphia, Pa.
Standard—Standard Engineering Works, Pawtucket, R. I. (hand.)
Sundstrand Machine Tool Co., Rockford, Ill. (horizontal, vertical; plain and universal). "Rigid-mil," "Rockford."
Superior Machine & Engineering Co., Detroit, Mich.
Traylor Engineering & Mfg. Co., Allentown, Pa.
Taylor & Fenn Co., Hartford, Conn. (vertical).
U S—United States Machine Tool Co., Cincinnati, O
Valley City—Gallmeyer & Livingston Co., Grand Rapids, Mich. (plain and universal).
Van Norman Machine Tool Co., Springfield, Mass.
Warner & Swasey Co., Cleveland, O.
Whitcomb, Geo. D., Co., Rochelle, Ill. (Coal.)
Whitney Mfg. Co., Hartford, Conn.

MACHINES, MILLING, BENCH.

Burke Machine Tool Co., The, Conneaut, O.
Carter & Hakes Machine Co., The, Winsted, Conn.
Farwell—The Adams Co., Dubuque, Ia.
Frew Machine Co., The, Philadelphia, Pa.
Manville, E. J., Machine Co., Waterbury, Conn.
Niles-Bement-Pond Co., New York.
Pedrick Tool & Machine Co., Philadelphia, Pa. "Pedrick."
Pratt & Wright—David A. Wright, Chicago, Ill.
Sloan & Chace—The Rice Machine Tool Corp., Newark, N. J.
Stark Tool Co., Waltham, Mass.
Sundstrand Machine Tool Co., Rockford, Ill. "Rockford."
Van Norman Machine Tool Co., Springfield, Mass.
Weed Engineering Works, Bridgeport, Conn.
Whitney Mfg. Co., Hartford, Conn.

MACHINES, MILLING, LINCOLN.

Becker—Reed-Prentice Co., Worcester, Mass.
Carter & Hakes Machine Co., Winsted, Conn.
Hendey Machine Co., Torrington, Conn.
Kempsmith Mfg. Co., Milwaukee, Wis.

MACHINES, MITERING.

Emmert—Emmert Mfg. Co., Waynesboro, Pa.

MACHINES, MORTISING.

(See also "Machinery, Woodworking.")

Black Bros. Co., The, Mendota, Ill.
Crescent—The Crescent Machine Co., Leetonia, O.
Enterprise Pulley Mortiser—Austin & Eddy, Boston, Mass.
Enterprise—Emmert Mfg. Co., Waynesboro, Pa.
Greenlee—Greenlee Bros. & Co., Rockford, Ill.
J. A. Fay & Egan Co., Cincinnati, O.
Jenkins Machine Co., Sheboygan, Wis.
McKnight, L. G., & Son Co., Gardner, Mass.
New Britain Machine Co., New Britain, Conn.
Sidney Machine Tool Co., Sidney, O.
Smith—H. B. Smith Machine Co., Smithville, N. J
Wallace—J. D. Wallace & Co., Chicago, Ill.
Whitney—Baxter D. Whitney & Son, Inc., Winchendon, Mass. (hollow chisel).

MACHINES, NIBBLING.

Campbell—Andrew C. Campbell, Inc., Bridgeport, Conn.

MACHINES, NIPPLE THREADING.

Apex—Merrell Mfg. Co., Toledo, O.
Armstrong Mfg. Co., Bridgeport, Conn.
Hall-Will, Inc., Erie, Pa. "Red-E-Hall."
Landis Machine Co., Waynesboro, Pa.
Murchey Machine & Tool Co., Detroit, Mich. "Murchey."
Niles-Bement-Pond Co., New York, N. Y
Oster—The Oster Mfg. Co., Cleveland, O.
Saunders, D., Sons, Yonkers, N. Y.
Standard Engineering Co., Ellwood City, Pa.

MACHINES, NUMBERING, ON METAL, LEATHER, ETC.

Bates—Bates Mfg. Co., Orange, N. J.
Matthews & Co., Jas. H., Pittsburgh, Pa.
Noble & Westbrook Mfg. Co., Hartford, Conn.

MACHINES, NUT SETTING.

Strand, N. A., & Co., Chicago, Ill.

MACHINES, OIL GROOVING.

Fischer Machine Co., Philadelphia, Pa.

MACHINES AND EQUIPMENT, PAINTING AND WHITEWASHING.

Atomatic, Spraguns—W. N. Matthews & Bro., Inc., St. Louis, Mo.
Binks Spray Equipment Co., Chicago, Ill.
Branford—Malleable Iron Fittings Co., Branford, Conn.
Brunner Mfg. Co., Utica, N. Y.
Chicago Pneumatic Tool Co., New York, N. Y.
De Vilbiss Mfg. Co., The, Toledo, O.
Erby Mfg. Co., The, Chicago, Ill. "Erby-Spray."
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
Hardie Mfg. Co., The, Hudson, Mich.
Humphryes Mfg. Co., The, Mansfield, O.
Lewis & Freeman, Cleveland, Ohio. (Electric Sprays.)
Lipman Pump Works, Rockford, Ill. "Lipman."
Macleod Co., The, Cincinnati, O. "Buckeye."
Matthews, W. N., Corp., St. Louis, Mo.
Milburn, Alexander, Co., The, Baltimore, Md.
Multiblasters—Geo. M. Stowe, Jr., Buffalo, N. Y.
Myers, F. E., & Bro. Co., Ashland, O.
Ohl—Geo. A. Ohl & Co., Newark, N. J.
Paasche Air Brush Co., Chicago, Ill.
Paragon—The Campbell-Hausfeld Co., Harrison, O.
Peerless Pneumatic Systems, Inc., Chicago, Ill.
Plummer-Huff Co., Napoleon, Ohio.
Schramm—Schramm, Inc., West Chester, Pa.
Simons Paint Spray Brush Co., Dayton, O.
Simplex Spray Equipment Co., Chicago, Ill.
Spraco—Spray Engineering Co., Boston, Mass.
Vaporspray—Impulse Tank Co., St. Louis, Mo.

MACHINERY, PIPE BENDING.

Buffalo Forge Co., Buffalo, N. Y.
Galland-Henning Mfg. Co., Milwaukee, Wis.
Hydraulic Press Mfg. Co., The, Columbus, O. "H.P.M."

Riverside Machine Co., Chester, Pa.
Ruggles—Ruggles Machine Co., Poultney, Vt.
Southwark Foundry & Machine Co., Philadelphia Pa.
Stoever—Treadwell Engineering Co., Easton, Pa.
Universal—J. Fillmore Cox, Bayonne, N. J.
Wonder—American Pipe Bending Machine Co., Boston, Mass.

MACHINES, PIPE AND TUBE CUTTING.

Cox & Sons Co., The, Bridgeton, N. J.
Fox Machine Co., Inc., Jackson, Mich.
French Patent—A. P. Smith Mfg. Co., Newark, N. J.
Fretter—Leonard Machine Works, Lansdowne, Pa. (multiple cutters for short lengths).
Giant Power—San Francisco Engineering Co., San Francisco, Cal.
Grant—The Lees-Bradner Co., Cleveland, O.
Harno Mfg. Co., Grand Haven, Mich.
Niles-Bement-Pond Co., New York, N. Y.
Standard Engineering Co., Ellwood City, Pa.

MACHINES, PIPE CUTTING AND THREADING.

Apex Merrell—The Merrell Mfg. Co., Toledo, O.
Armstrong Mfg. Co., The, Bridgeport, Conn. (hand and power.)
Bignall & Keeler Machine Works, Edwardsville, Ill (Trade names—B. & K., Duplex, P. D. Q. C. Peerless.)
Beaver—The Borden Co., Warren, O.
Chicago Pipethread Machine Co., Racine, Wis.
Cox & Sons Co., Bridgeton, N. J.
Curtis & Curtis Co., The, Bridgeport, Conn. (Trade names—Forbes, New Forbes.)
Fox Machine Co., Inc., Jackson, Mich.
Geist—Landis Machine Co., Waynesboro, Pa.
Giant Powder—San Francisco Eng. Co., San Francisco, Cal.
Greenfield Tap & Die Corp., Greenfield, Mass. (Trade names—G. T. D., Little Giant.)
Grant Mfg. & Machine Co., Bridgeport, Conn.
Hall-Will, Inc., Erie, Pa. "Red-E-Hall."
Hoefer—Hoefer Mfg. Co., Freeport, Ill.
Jarecki Mfg. Co., Erie, Penna.
Manning, Maxwell & Moore, Inc., New York, N. Y.
Merrell—The Merrell Mfg. Co., Toledo, O.
Mill-Type Standard—Standard Engineering Co., Ellwood City, Pa.
Modern-Bond Co., The, Wilmington, Del
Murchey Machine & Tool Co., Detroit, Mich.
National Acme Co., Cleveland, O.
Niles-Bement-Pond Co., New York, N. Y.
Nye—Nye Tool & Machine Works, Chicago, Ill.
Oster—The Oster Mfg. Co., Cleveland, O.
Pipe Machinery Co., The, Cleveland, O.
Racine Tool & Machine Co., Racine, Wis.
Robinson Improved—Wm. V. Robinson Co., Owosso Mich.
Rogaco—Robbins, Gamwell & Co., Pittsfield, Mass. (portable electric).
Saunders'—D. Saunders' Sons, Inc., Yonkers, N. Y.
Stoever—Treadwell Engineering Co., New York, N. Y
Toledo—Toledo Pipe Threading Machine Co., Toledo, O.
Walworth Company, Boston, Mass.
W. B.—San Francisco Engineering Co., San Francisco
Wieland Standard—Standard Engineering Co., Ellwood City, Pa.
Williams Tool Corp., Erie, Pa. (Trade names—Williams (stationary), Willie Williams (portable).

MACHINES, POLISHING AND BUFFING.

American Laundry Machinery Co., Cincinnati, O.
Automatic Buffing Machine Co., Buffalo, N. Y.
Black & Decker Mfg. Co., The, Towson, Md. "Marschke."
Bodine Electric Co., Chicago, Ill.
Bond Foundry & Machine Co., Manheim, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.
Builders Iron Foundry, Providence, R. I.
C. A. W.—Cleveland Armature Works, Inc., Cleveland, O.
C. L. P.—The C. L. P. Electric Co., New York, N. Y.
Champion Blower & Forge Co., The, Lancaster, Pa.
Cincinnati—The Cincinnati Electrical Tool Co., Cincinnati, O.
Clizbe—Clizbe Bros. Mfg. Co., Plymouth, Ind.
Columbia Mfg. Co., Belleville, Ill. "Columbia."
Curtis Machine Corp., Jamestown, N. Y. "Curtis."
Diamond Machine Co., Providence, R. I.
Dillon—The Dillon Electric Co., Canton, O.
Dumore—Wisconsin Electric Co., Racine, Wis.
Duplex—Duplex Moulding Sander Co., Hornell, N. Y.
Excelsior Tool & Machine Co., East St. Louis, Ill.
Grabo, E. O., Machine Works, Inc., New York, N. Y.
Hemming Bros., Co., Inc., New Haven, Conn.
Hisey—Hisey-Wolf Machine Co., Cincinnati, O.
M. P. D.—Meriden Press & Drop Co., The, Meriden, Conn. (for glass, marble, slate, etc).
Manning, Maxwell & Moore, Inc., New York, N. Y.
Marschke—The Black & Decker Mfg. Co., Towson, Md.
Morris Machine Tool Co., Cincinnati, O.
Myers Machine Tool Corp., Columbia, Pa.
Noble & Westbrook Mfg. Co., Hartford, Conn.
O. K.—Marathon Electric Mfg. Co., Wausau, Wis.
Oakley & Jansen Machinery Co., Parkersburg, W. Va.
Peerless Surfacing Machine Co., Troy, N. Y.
Production Machine Co., Greenfield, Mass.
Robinson, Wm. V., Co., The, Owosso, Mich. (stove).
Royersford Foundry & Machine Co., Royersford, Pa. "Excelsior."
Strand, N. A., & Co., Chicago, Ill.
Springfield Mfg. Co., The, Bridgeport, Conn.
Turbine Air Tool Co., Cleveland, O.
U. S. Electrical Mfg. Co., Los Angeles, Cal. "Johnson."
U. S. Electrical Tool Co., Cincinnati, O.
Valley City—Gallmeyer & Livingston Co., Grand Rapids, Mich.
Van Dorn Electric Tool Co., Cleveland, O. "Van Dorn."
W. B.—San Francisco Eng. Co., San Francisco, Cal.
W. & P.—Hill-Curtis Co., Kalamazoo, Mich.
Webb Mfg. Co., Newark, N. J. (flexible shaft).
Weisbecker & Sons, Francis A., Brooklyn, N. Y.
Whitney Jack—The New Britain Machine Co., New Britain, Conn.
Wodack—Wodack Electric Tool Corp., Chicago, Ill. (portable).

MACHINES, PROFILING, BENCH.

Circular Tool Co., Providence, R. I. (cutters).
Coulter—The Automatic Machine Co., Bridgeport, Conn.
Fischer Machine Co., Philadelphia, Pa.
Frew Machine Co., The, Philadelphia, Pa.
Leland-Gifford Co., Worcester, Mass.
"Oliver of Adrian"—Oliver Instrument Co., Adrian Mich.
Reed-Prentice Corp., Worcester, Mass.
Wade American Tool Co., Waltham, Mass.

MACHINERY, PULLEY, MOLDING, FINISHING, DRILLING AND TAPPING.

Cincinnati—Avey Drilling Machinery Co., Covington, Ky.
Enterprise—Austin & Eddy, Boston, Mass.

MACHINERY, PUMPING.

(See "Pumps.")

MACHINERY, PUNCHING AND SHEARING.

(See "Punches" and "Shears.")

Badger State Machine Works, Beloit, Wis.
Buffalo Forge Co., Buffalo, N. Y.
Excelsior Tool & Machine Co., East St. Louis, Ill.
Heartley Machine, Variety Iron & Tool Works, Toledo, O.
Little Giant—Little Giant Punching & Shearing Co., Sparta, Ill.
Manning, Maxwell & Moore, Inc., New York, N. Y.
Marvel—Armstrong-Blum Mfg. Co., Chicago, Ill.
New Doty Mfg. Co., Janesville, Wis.
Pels, Henry, & Co., New York, N. Y. "Pels."
Royersford Foundry & Machine Co., Royersford, Pa.
Southwark Foundry & Machine Co., Philadelphia, Pa.

MACHINES, RACK CUTTING.

Adams Co., Dubuque, Ia.
Fellows Gear Shaper Co., Springfield, Vt.
Flather, E. J., Mfg. Co., Nashua, N. H.
High Duty—Gould & Eberhardt, Newark, N. J.
Jeffrey Mfg. Co., The, Columbus, O.
LeBlond Machine Tool Co., Cincinnati, O.
Reed-Prentice Corp., Worcester, Mass.

MACHINERY, RACKING.

Schlangen Bros. Co., Chicago, Ill.

MACHINES, REAMING.

Barnes Drill Co., Rockford, Ill.
Blettner, George H., Co., Chicago, Ill. "Blettner."
Diamond Machine Co., Providence, R. I.
Kingsbury Mfg. Co., Keene, N. H.
Stow Mfg. Co., Inc., Binghamton, N. Y.
Toledo Pipe Threading Machine Co., The, Toledo, O. (pipe cutting, threading and reaming).

MACHINES, REFRIGERATING.

Milwaukee Steam Appliance Co., West Allis, Wis.

MACHINES, RING COILING.

Wallace Supplies Mfg. Co., Chicago, Ill.

MACHINES, RIVETING.

Allen, John F., Co., Inc., New York. (pneumatic).
Badger—Rock River Machine Co., Janesville, Wis.
Bilton Machine Tool Co., The, Bridgeport, Conn.
Black Diamond Saw & Machine Works, Natick, Mass. "Black Diamond."

Blomquist-Eck Machine & Mfg. Co., Cleveland, O.
Elastic Rotary—The F. B. Shuster Co., New Haven, Conn.
Grant—Grant Mfg. & Machine Co., Bridgeport, Conn.
Hardsocg—Wonder Drill Co., Ottumwa, Iowa.
Heartley Machine, Variety Iron & Tool Works, Toledo, O.
Hemming Bros. Co., Inc., New Haven, Conn.
High Speed Hammer Co., Rochester, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Manufacturers Belt Hook Co., Chicago, Ill. (hand and foot).
Niles-Bement-Pond Co., New York, N. Y.
Pony—F. H. Smith Mfg. Co., Chicago, Ill.
Spinhammer—Pressed Metal Machinery Co., Chicago, Ill.
Stearns, E. C., & Co., Syracuse, N. Y.
Townsend, H. P., Mfg. Co., Hartford, Conn.
Watson-Stillman Co., The, New York, N. Y.

MACHINERY, ROAD MAKING.
(See also "Graders, Road.")

Acme Road Machinery Co., Frankfort, N. Y.
Albany Iron Works, Albany, Ore.
Buckeye—Buckeye Traction Ditcher Co., Findlay, O.
Gade—C. L. Gade, Iowa Falls, Ia.
Galion Iron Works & Mfg. Co., Galion, O.
Glide Road Machine Co., Minneapolis, Minn.
Globe Machinery & Supply Co., Des Moines, Ia.
Good Roads Machinery Co., Kennett Square, Pa. (Trade names—Champion, Monarch, Monarch Cub, Winner.)
Huber Mfg. Co., Marion, O.
Iroquois, Genasco—Barber Asphalt Co., Philadelphia, Pa.
Lakewood Engineering Co., Cleveland, O.
Link-Belt Company, Chicago and Philadelphia.
Owensboro Ditcher & Grader Co., Inc., Owensboro, Ky.
Perfection—Buckeye Traction Ditcher Co., Findlay, Ohio.
Phoenix—Phoenix Mfg. Co., Eau Claire, Wis.
Quick Lift—Stockland Road Machinery Co., Minneapolis, Minn.
Syracuse Chilled Plow Co., Syracuse, N. Y.
Twenty-Century—Baker Mfg. Co., The, Springfield, Ill.
Universal Road Machinery Co., Kingston, N. Y. (Trade names—Porcupine, Reliance.)
Western Wheeled Scraper Co., Aurora, Ill.

MACHINES, ROD THREADING.

Grant Mfg. & Machine Co., Bridgeport, Conn.

MACHINES, RUBBING, FLEXIBLE SHAFT.

Thompson Rubbing Machine, Inc., Binghamton, N. Y.

MACHINES, SANDING, ELECTRIC.
(For removing marks from old shipping crates, etc.)

Sanderplane—The American Floor Surfacing Machine Co., Toledo, O.

MACHINES, SANDING AND POLISHING.

Austin & Eddy, Boston, Mass. "Pioneer."
Beach—Beach Mfg. Co., Montrose, Pa.
Clarke Sanding Machine Co., Chicago, Ill.
Curtis Machine Corp., Jamestown, N. Y.
Duplex—Duplex Moulding Sander Co., Hornell, N. Y.
Esco—Electric Specialty Co., Stamford, Conn.
Eureka—Eureka Sander Co., Racine, Wis.
Fischer, Busmeyer & Maloney Machine Co., Covington, Ky.
Grammes, L. F., & Sons, Allentown, Pa.
Kent Mfg. Co., The, Faribault, Minn. "Spiral."
Klotz Machine Co., Sandusky, O. "Jones."
Master Woodworker Mfg. Co., Detroit, Mich. "The Master."
Nash, J. M., Milwaukee, Wis.
National Sanding Machine Co., Chicago, Ill.
Nedco Machine Co., Boston, Mass.
New Premier—Motor Appliance Co., Oshkosh, Wis.
Oakley & Jansen Machinery Co., Parkersburg, W. Va.
Peerless—Peerless Surfacing Machine Co., Inc., Troy, N. Y.
Porter Cable Machine Co., Syracuse, N. Y. "Syracuse" and "Take-About."
Sundstrand Machine Tool Co., Rockford, Ill. "Rockford," "Superior."
Schimmel—F. W. Winter & Co., Faribault, Minn.
Smith, H. B., Machine Co., Smithville, N. J. "Smith."
Syracuse, Emmert—Emmert Mfg. Co., Waynesboro, Pa.
Trevor Mfg. Co., Lockport, N. Y.
Valley City—Gallmeyer & Livingston Co., Grand Rapids, Mich.
Victory—Saint Paul Machinery Mfg. Co., St. Paul, Minn.
Wallace—J. D. Wallace & Co., Chicago, Ill.

MACHINERY, SAW AND KNIFE FITTING.

Black Diamond Saw & Machine Works, Natick, Mass.
Machinery Company of America, Big Rapids, Mich. (Retoothers, saw stretcher washers; brazing tongs; combination brazing and toothing machine; patch machine; band saw crack drill; [Widemire] circular saw tension gage; machine knives; saw tooth gages; [Munson] knife balancing machines.
Wardwell Mfg. Co., The, Cleveland, O.

MACHINERY AND EQUIPMENT, SAW MILL.

Adams Co., W. T., Corinth, Miss. (Trimmers, edgers, cut-off saws, etc.)
Albany Iron Works, Albany, Ore.
Allis-Chalmers Co., Milwaukee, Wis.
American, Hercules—American Saw Mill Machinery Co., Hackettstown, N. J. (shingle, lath, cordwood, splitters, drag-saw, gang-edgers, lumber trimmers, saw mandrels, circular saws, planers and matchers).
Bartley & Sons, Wm., Bartley, N. J.
Boice-Crane—W. B. & J. E. Boice, Toledo, O.
Bretting Mfg. Co., C. J., Ashland, Wis.
Chandler & Taylor Co., Indianapolis, Ind.
Chapman's, T. M., Sons Co., Old Town, Me.
Chase Turbine Mfg. Co., Orange, Mass. (Water wheels, saw mills, shingle and automatic box machinery, planers, clippers and edgers.)
Clark—Clark Bros. Co., Olean, N. Y.
Corinth Machinery Co., Corinth, Miss.
Diamond Iron Works, Minneapolis, Minn.
Frick Co., Waynesboro, Pa.
Enterprise—The Enterprise Co., Columbiana, O.
Farquhar Co., A. B., York, Pa.
Filer & Stowell Co., The, Milwaukee, Wis.
Fischer Machine Works, Chicago, Ill.
Giant—General Supply & Machine Co., Meridian, Miss.
Gordon Hollow Blast Grate Co., Greenville, Mich. (edgers and trimmers). "Tower."
Henderson, W. K., Iron Works & Supply Co., Ltd., Shreveport, La.
Hesse-Ersted Iron Works, Portland, Ore.
Hill-Curtis Co., Kalamazoo, Mich.
Hoosier—The Sinker-Davis Co., Indianapolis, Ind. (band saws, circular saws, carriages, head blocks, engines, boilers, edgers, trimmers, log turners, rip saws, saw tables, steam feeds, governors whistles).
Hustler—Salem Iron Works, Winston-Salem, N. C (sawmills, planers, matchers).
Ireland—Ireland Machine & Fdy. Co., Norwich, Conn.
Jeffrey Mfg. Co., Columbus, O. "Jeffrey."
Huntsville Foundry & Machine Co., Huntsville, Ala. "Jones."
Knight Mfg. Co., The, Canton, O. (Carriages, road blocks, dogs, edgers, saws.)
Lane Mfg. Co., Montpelier, Vt. (Circular.)
Liddell Co., Charlotte, N. C.
Lindahl Machine Co., Henry, Chicago, Ill.
Link-Belt Company, Chicago and Philadelphia.
Lombard Iron Works & Supply Co., Augusta, Ga.
Mahoney Machinery Co., Erie, Pa.
McDonough Mfg. Co., Eau Claire, Wis. (Resaws, edgers, carriages, band mills, trimmers, conveyors, etc.)
Memphis Machine Works, Memphis, Tenn. (sawmills, carriages, edgers, trimmers, slab slashers and conveyors, elevators, rolls, log turners, niggers, rip and swing cut-off saws, feeds, bull wheels, etc.)
Mershon, Wm. B., & Co., Saginaw, Mich.
Multnomah Iron Works, Portland, Ore.
Murray, D. J., Mfg. Co., Wausau, Wis.
Phoenix Mfg. Co., Eau Claire, Wis.
Prescott Co., The, Menominee, Mich.
Puget Sound Machinery Depot, Seattle, Wash.
Raleigh Iron Works Co., Raleigh, N. C.
Russell & Co., The, Massillon, O. (circular).
Salem Iron Works, Winston-Salem, N. C.
Scarbrough Mfg. Co., Chattanooga, Tenn. (bolters, dogs, feedmills, guides, log turners, log hauls, shingle mills, swing saws). "De Loach," "Scarbrough."
Seibert, Louis L., & Co., Cincinnati, O.
Standard Saw Mill Machinery Co., Erie, Pa.
Star Machinery Co., Seattle, Wash.
Sumter Machinery Co., Sumter, S. C. (edgers and swing saws).
United States Machine Co., Williamsport, Pa.
Vance, J. A., Co., Winston-Salem, N. C. "Vance."
Weintz Bros., Evansville, Ind.
Wheland—The Wheland Co., Chattanooga, Tenn. (circular and band saws, tractor saw mills, steam niggers, log cut-off saws, log kickers.)
Whitney, Baxter D., & Son, Winchendon, Mass. (Surfacers.)
Yates-American Machine Co., Rochester, N. Y.

MACHINES, SAW SETTING AND FILING.

Atkins, E. C., & Co., Indianapolis, Ind.
Black Diamond Saw & Machine Works, Natick, Mass.
Cochrane-Bly Company, Rochester, N. Y.
Creasy—Creasy Rotary Filer Co., The, Ballinger, Tex
Espen-Lucas Machine Works, Philadelphia, Pa.
Foley—Foley Saw Tool Co., Minneapolis, Minn.
Hanchett—Machinery Company of America, Big Rapids, Mich.
Manning, Maxwell & Moore, Inc., New York, N. Y.
New Britain Machine Co., New Britain, Conn.
Rogers, S. C., & Co., Buffalo, N. Y.
Simonds Saw & Steel Co., Fitchburg, Mass.
Timmis & Clissold, Bound Brook, N. J. "T. & C."
Wardwell Mfg. Co., Cleveland, O.
Zeiller & Nagel, Brooklyn, N. Y. "Bauer."

MACHINES, SAW SHEARING AND CROSS CUTTING.

Hanchett—Machinery Company of America, Big Rapids, Mich.

MACHINES, SAW FILING, SETTING AND JOINTING.

Pribnow Saw Sharpening Machine Co., Los Angeles, Calif.
Wardwell Mfg. Co., The, Cleveland, O.

MACHINES, SCREW, AUTOMATIC.

Bardons & Oliver, Cleveland, O.
Brown & Sharpe Mfg. Co., Providence, R. I.
Chicago Automatic Machine Co., Chicago, Ill. "Camco."
Cincinnati Acme—The Acme Machine Tool Co., Cincinnati, O.
Cincinnati—Cincinnati Automatic Machine Co., Cincinnati, O.
Cleveland Automatic Machine Co., Cleveland, O.
Cone Automatic Machine Co., Inc., Windsor, Vt.
Coulter—The Automatic Machine Co., Bridgeport, Conn.
Dreses Machine Tool Co., Cincinnati, O.
Geometric—Geometric Tool Co., New Haven, Conn.
McCabe, J. J., Lathe & Mach. Corp., New York, N. Y.
Manning, Maxwell & Moore, Inc., New York, N. Y.
National Acme Co., The, Cleveland, O. "Acme," "Gridley."
Peerless Automatic Machine Co., Cleveland, O.
Radical—Springfield Automatic Screw Machine Corp., Fitchburg, Mass.
Tilted Turret—Wood Turret Machine Co., Brazil, Ind.
Townsend, H. P., Mfg. Co., Hartford, Conn.
Universal—New Britain Machine Co., New Britain, Conn.
Warner & Swasey Co., The, Cleveland, O. (turret).
Wright, David A., Chicago, Ill.

MACHINES, SCREW, HAND.

Bardons & Oliver, Cleveland, O.
Hartness—Jones & Lamson Machine Co., Springfield, Vt.
Stark—Stark Tool Co.,, Waltham, Mass.
Wood Turret Machine Co., Brazil, Ind.

MACHINES, SCREW SLOTTING.

Brown & Sharpe Mfg. Co., Providence, R. I.
Langelier Mfg. Co., Providence, R. I.
Manville, E. J., Machine Co., Waterbury, Conn.
Sellers & Co., Inc., Wm., Philadelphia, Pa.

MACHINES, SCREWDRIVING.

Black & Decker Mfg. Co., The, Towson, Md. (electric).
Coates—Coates Clipper Mfg. Co., Worcester, Mass.
Detroit Power Screwdriver Co., Detroit, Mich.
Hergi Mfg. Co., The, Bridgeport, Conn.
Hisey-Wolf Machine Co., The, Cincinnati, O.
Reynolds Machine Co., The, Massillon, O.
Stewart—Chicago Flexible Shaft Co., Chicago, Ill.
Strand, N. A., Mfg. Co., Chicago, Ill.

MACHINES, SEAMING.

Adriance Machine Works, Inc., Brooklyn, N. Y.
Quickwork Company, The, St. Marys, O.

MACHINES, SEWER CLEANING.

Duplex Mfg. Co., Philadelphia, Pa.
Turbine Sewer Machine Co., Milwaukee, Wis.

MACHINES, SHEARING AND FLANGING, COMBINED.

Quickwork Company, The, St. Marys, O.

MACHINERY AND TOOLS, SHEET METAL WORKING.

Adriance Machine Works, Inc., Brooklyn, N. Y.
Ainslie Machine & Tool Works, Hartford, Conn.
American Tool Works Co., The, Cincinnati, O.
Amscan—The Max Ams Machine Co., New York, N. Y.
Atlas Machine Co., The, Waterbury, Conn.
Badger State—Badger State Machine Works, Beloit, Wis.
Bertsch & Co., Cambridge City, Ind.
Bliss—E. W. Bliss & Co., Brooklyn, N. Y.
Buckeye Engine Co., Salem, O.
Canton Foundry & Machine Co., Canton, O.
Ferracute Machine Co., Bridgeton, N. J.
Hallden Machine Co., Waterbury, Conn. (straightenening and cutting).
Heartley Machine, Variety Iron & Tool Works, Toledo, O.
Henry & Wright Mfg. Co., Hartford, Conn.
Imperial Tool & Machine Co., Indianapolis, Ind.
Kane & Roach, Syracuse, N. Y.
Leffler & Co., Chas., Brooklyn, N. Y.
Manning, Maxwell & Moore, Inc., New York, N. Y.
Newman Machine Co., Greenboro, N. C.
Niagara Machine & Tool Works, Buffalo, N. Y.
Ohl & Co., Geo. A., Newark, N. J.
O. K.—Dreis & Krump Mfg. Co., Chicago, Ill.
Quickwork Co., The, St. Marys, O.
Robinson, J. M., Mfg. Co., The, Cincinnati, O.
San Francisco Engineering Co., San Francisco, Cal. "W. B."
Savage, W. J., Co., Knoxville, Tenn.
Stamco—Streine Tool & Mfg. Co., New Bremen, O.
Stoll, D. H., Co., Inc., Buffalo, N. Y.
Toledo—Toledo Machine & Tool Co., Toledo, O.
V. & O. Press Co., The, Brooklyn, N. Y.
Yoder, C. M., Co., The, Cleveland, O. "Yoder."
Zeh & Hahnemann Co., Newark, N. J.

MACHINERY, SHINGLE AND LATH MILL.

American Saw Mill Machinery Co., Hackettstown, N. J.
Atlanta—Southern Saw Works, Atlanta, Ga.
Bartlett, A. F., & Co., Saginaw, Mich.
Chapman's Sons Co., T. M., Old Town, Me.
Chase Turbine Mfg. Co., Orange, Mass.
Chattanooga Machinery Co., Chattanooga, Tenn.
Corinth Machinery Co., Corinth, Miss.
Diamond—Diamond Iron Works, Minneapolis, Minn.
Hill-Curtis Co., Kalamazoo, Mich.
Ireland—Ireland Machine & Foundry Co., Norwich, N. Y.
Kline, Lewis T., Alpena, Mich.
Knight Mfg. Co., The, Canton, O.
Lane Mfg. Co., Montpelier, Vt.
Langelier Mfg. Co., Arlington, Providence, R. I.
Lombard Iron Works & Supply Co., Augusta, Ga.
Puget Sound Machinery Depot, Seattle, Wash.
Scarbrough Mfg. Co., Chattanooga, Tenn. "De Loach," "Scarbrough."
Standard Saw Mill Machinery Co., Erie, Pa.
Star Machinery Co., Seattle, Wash.
Street Brothers Machine Works, Chattanooga, Tenn.
Trevor Mfg. Co., Lockport, N. Y.
United States Machine Co., Williamsport, Pa.
Wheland Company, The, Chattanooga, Tenn.

MACHINES, SLOTTING.

Bilton Machine Tool Co., Bridgeport, Conn.
Langelier Mfg. Co., Arlington, Providence, R. I.
Craftsman Tool Co., The, Conneaut, O.
Dill—T. C. Dill Machine Co., Philadelphia, Pa.
Putnam—Manning Maxwell & Moore, Inc., New York, N. Y.
Racine Tool & Machine Co., Racine, Wis.
Rhodes Mfg. Co., Hartford, Conn.
Sellers, Wm., & Co., Inc., Philadelphia, Pa.

MACHINES, SPRING MAKING.

Baird Machine Co., The, Bridgeport, Conn.

MACHINES, STENCIL CUTTING.

Bradley—Bradley Stencil Machine Co., St. Louis, Mo.
Ideal Stencil Machine Co., Belleville, Ill.

MACHINES, SWAGING.

Atkins, E. C., & Co., Indianapolis, Ind.
Bliss Co., E. W., Brooklyn, N. Y.
Etna Machine Co., Toledo, O.
Langelier Mfg. Co., Arlington, R. I.
Machinery Company of America, Big Rapids, Mich.
Standard Machinery Co., Providence, R. I.

MACHINES, TAPPING.

(See also "Attachments Tapping.)

All Geared—Barnes Drill Co., Rockford, Ill.
Alto—Alto Manufacturing Co., Chicago, Ill.
American Tool Works Co., Cincinnati, O.
Anderson Die Machine Co., Bridgeport, Conn. (and drilling combined).
The Bench—The Bench Machine Tool Co., Philadelphia, Pa.
Bicknell-Thomas Co., Greenfield, Mass.
Black & Decker Mfg. Co., The, Towson, Md. (portable electric).
Burke Machine Tool Co., The, Conneaut, Ohio.
Chain Belt Co., Milwaukee, Wis.
Cincinnati Bickford Machine Tool Co., Cincinnati, O. "Cincinnati."
Cox & Sons Co., The, Bridgeton, N. J.
Elgin Tool Works, The, Elgin, Ill.

Errington, F. A., Mech'l Laboratory, New York, N. Y.
Fenn Mfg. Co., Hartford, Conn. "Fenns."
Foote-Burt Co., The, Cleveland, O.
Fosdick Machine Tool Co., Cincinnati, O.
Fox Machine Co., Jackson, Mich.
Frew Machine Co., The, Philadelphia, Pa.
Frontier Iron Works, Buffalo, N. Y.
Gaterman, W., Mfg. Co., Manitowoc, Wis. (pneumatic).
Geometric Tool Co., New Haven, Conn.
Gould & Eberhardt, Newark, N. J.
Grant Mfg. & Machine Co., Bridgeport, Conn.
Hammond—Hammond Mfg. Co., The, Cleveland, O.
Harris Engineering Co., Bridgeport, Conn.
Hart & Hegeman Mfg. Co., Hartford, Conn. (automatic).
Hoefer Mfg. Co., Inc., Freeport, Ill.
Independent Pneumatic Tool Co., Chicago, Ill.
It's a Baker—Baker Bros., Toledo, O.
Manning, Maxwell & Moore, Inc., New York, N. Y.
Meriden Machine Tool Co., Meriden, Conn.
Noble Machine Co., Ft. Wayne, Ind.
Procunier, Wm. L., Chicago, Ill. (Bench)
Rockford Drilling Machine Co., Rockford, Ill.
San Francisco Engineering Co., San Francisco, Cal.
Sheldon Machine Co., Chicago, Ill.
Sloan & Chace—The Rice Machine Tool Corp., Newark, N. J.
Standard Engineering Co., Ellwood City, Pa.
Stark—Stark Tool Co., Waltham, Mass.
Stewart, S. A., & Co., Waltham, Mass.
Stow Mfg. Co., Inc., Binghamton, N. Y.
Taylor-Shantz Co., Rochester, N. Y.
Temco—Temco Electric Motor Co., Leipsic, O. (portable, electric).
Turner Machine Co., Danbury, Conn.
Tuttle—Paragon Gear Works, Taunton, Mass.
Wells—Greenfield Tap & Die Corp., Greenfield, Mass.
Whitney Mfg. Co., Hartford, Conn.
Whitney—Whitney Metal Tool Co., Rockford, Ill.
Woodstock—Peter Bros. Mfg. Co., Algonquin, Ill.

MACHINES, TAPPING, PORTABLE, ELECTRIC.

United States Electrical Tool Co., Cincinnati, Ohio.

MACHINES, TESTING, BRINELL, ETC.

Steel City Testing Laboratory, Detroit, Mich.

MACHINES AND STEAMERS, THAWING, PIPE.

Aeroil Burner Co., Inc., Union Hill, N. J.
American—John Trageser Steam Copper Works, New York, N. Y.
Bernz, Otto, Co., Newark, N. J.
Bonanza—Turner Brass Works, Sycamore, Ill.
Garrison-Heiland Corp., New York, N. Y.
Koven, L. O., & Bro., Jersey City, N. J.
Westinghouse Electric & Mfg. Co., Philadelphia, Pa.

MACHINERY AND FIXTURES, THREAD MILLING.

Champion Blower & Forge Co., Lancaster, Pa.
Community Machine & Tool Wks., Inc., New York.
Coulter—The Automatic Machine Co., Bridgeport, Conn.
Hanson-Whitney Machine Co., The, Hartford, Conn.
Lees-Bradner & Co., The, Cleveland, O.
Planetary—The Hall Planetary Co., Philadelphia, Pa.
Sheldon Machine Co., Chicago, Ill.
Taft-Pierce Mfg. Co., The, Woonsocket, R. I. "Archdale Type."

MACHINES, THREAD ROLLING.

Blake & Johnson Co., Waterbury, Conn.
Bliss Co., E. W., Brooklyn, N. Y.
Manville Machine Co., E. J., Waterbury, Conn.
V. & O.—The V. & O. Press Co., Brooklyn, N. Y.

MACHINES, TIERING.

(See also "Elevators, Portable.")

Barrett-Cravens Co., Chicago, Ill.
Economy Engineering Co., Chicago, Ill.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Lakewood Tier Lift Truck—Lakewood Engineering Co., Cleveland, O.
Lewis-Shepard Platform Corp., South Boston Mass. N. Y. (planers.)
Link-Belt Company, Chicago and Philadelphia.
Revolvator—Revolvator Co., Jersey City, N. J.

MACHINES, VALVE GRINDING.

(See also "Tools, Valve Reseating.")

American Tool & Machine Co., Boston, Mass.
Bilt-Rite—Bilt-Rite Equipment Co., Worcester, Mass.
Black & Decker Mfg. Co., The, Towson, Md. (electric).
Defiance Machine Works, The, Defiance, Ohio.
Dexter—The Leavitt Machine Co., Orange, Mass.
McKinnon—McKinnon Iron Works Co., Ashtabula, O.
Milwaukee Cock Grinding Machine Co., Milwaukee, Wis.

Parker—Ex-Cell-O Tool & Mfg. Co., Inc., Detroit, Mich. (Variety grinding, drilling and turning machines.)
Pottstown Machine Co., Pottstown, Pa. (tapping, seating and finishing.)
Rooksby, E. J., & Co., Philadelphia, Pa.
Skinner, M. B., Co., Chicago, Ill.
Smith Mfg. Co., A. P., East Orange, N. J.
Sterling—Adam A. Long Machine Works, Rochester, N. Y.
Tryon Mfg. Co., New York, N. Y. (Trade names—Chat-Less, Tryon.)
United States Electrical Tool Co., The, Cincinnati, O. (electric).
Warner & Swasey Co., Cleveland, O.

MACHINERY, WASTE AND WIPER RECLAIMING.

American Laundry Machinery Co., Cincinnati, O.

MACHINERY AND TOOLS, WELL DRILLING.

American Well Works, The, Aurora, Ill. "American."
Armstrong Mfg. Co., Waterloo, Iowa.
Beaumont Iron Works, Beaumont, Tex.
Boardman, Robt., Co., The, Oil City, Pa.
Bradford Supply Co., Bradford, Pa.
Clipper—Loomis Machine Co., Tiffin, O.
Cyclone—Sanderson Cyclone Drill Co., Orrville, O.
Dempster Mill Mfg. Co., Beatrice, Neb. "Dempster."
Empire—Leidecker Tool Co., Marietta, O.
Ft. Worth—Axtell Co., Ft. Worth, Tex.
Finlayson Tool Co., The, Tulsa, Okla.
Ithaca—Williams Bros., Ithaca, N. Y.
Johnston Gumbo Buster—American Well & Prospecting Co., Corsicana, Tex.
Keystone—Keystone Driller Co., Beaver Falls, Pa.
Knight Mfg. Co., The, Canton, O.
Lone Star—Axtell Company, Ft. Worth, Tex.
Lucey Mfg. Corp., New York, N. Y.
Marietta—Leidecker Tool Co., Marietta, O.
Monarch—Gus Pech Foundry & Mfg. Co., Le Mars, Iowa.
Oil Well Supply Co., Pittsburgh, Pa.
OK—Oklahoma Iron Works, Tulsa, Okla.
O'Leary, Arthur, & Son Co., Chicago, Ill.
S. H.—Hughes Tool Co., Houston, Tex.
Sparta Iron Works Co., Sparta, Wis. "Sparta."
Standard—The Specialty Device Co., Cincinnati, O.
Star Drilling Machine Co., Akron, O.
West Texas—San Antonio Machine & Supply Co., San Antonio, Texas.

MACHINES, WIRING, SHEET METAL.

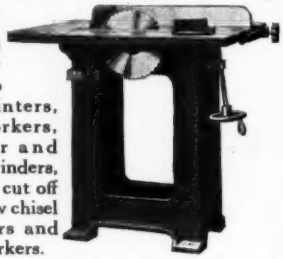
Quickwork Company, The, St. Marys, O.

MACHINERY, WOODWORKING.

Adams Company, The, Dubuque, Iowa (milling machine for planers).
Adams, W. T., Machine Co., Corinth, Miss. (saw mills).
Advance-Van Wert—New Advance Machinery Co., Van Wert, O.
Advance, Toledo—Alexander Dodds Co., Grand Rapids, Mich.
Ajax Mfg. Co., Pittsburgh, Pa. (boring machines).
Albany Iron Works, Albany, Ore. (edgers).
American—American Saw Mill Machinery Co., Hackettstown, N. J. (edgers, jointers, lathes, boring machines, planers, band saw machines, saw tables, saw mills, variety woodworkers).
American Scale Co., Kansas City, Mo. (saw mills).
Andrew & Co., M. L., Cincinnati, O. (boring machine).
Armstrong Mfg. Co., Portland, Ore. (saw tables).
Atkins, E. C., & Co., Indianapolis, Ind. (band saw machines, etc.)
Austin & Eddy, Boston, Mass. (molding sanders, lathes, mortisers, etc.).
Badger State Machinery Works, Beloit, Wis. (saw tables).
Barnard, Chas. A., Machine Co., Gardner, Mass (bending mach.).
Barnes—W. F. & John Barnes Co., Rockford, Ill (mortisers, tenoners, scroll saws, circular saws formers, saw tables).
Barnes, W. O., Co., Detroit, Mich. (band saw machines, etc.).
Bartley, Wm., & Sons, Bartley, N. J. (saw mills).
Bauer & Pease, Grand Rapids, Mich. (band saw machines, etc.).
Bay State Saw & Tool Mfg. Co., Inc., Winchester, Mass. (band saw machines).
Beach Mfg. Co., Montrose, Pa. (variety woodworkers, saw tables).
Bell—The Bell Machine Co., Oshkosh, Wis. (wheelmaking, etc.)
Billstrom, Nels J., Rockford, Ill. (glue clamp carrier).
Black Bros. Co., Mendota, Ill. (clamp holding, veneer and glue room, moulding, mortising, sandpapering.)
Boice-Crane—W. B. & J. E. Boice, Toledo, O. (drills band saws, drills, jointers, woodworkers, saw tables, variety lathes, etc.).
Boynton & Plummer, Inc., Chester Depot, Vt. (saw tables).

The Crescent Line of Wood Working Machines

is designed by experts, constructed by specialists and continues to be the standard value by which wood working machinery generally is judged.



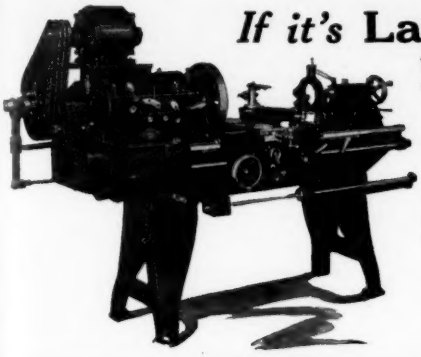
The line consists of band saws, saw tables, self feed rip saw, shapers, jointers, variety wood workers, planers, planer and matchers, disk grinders, swing cut off saws, cut off table, borers, hollow chisel mortiser, tenoners and universal wood workers.

The Crescent Machine Co.

96 Columbia St.,

Leetonia, Ohio, U. S. A.

Buffalo Forge Co., Buffalo, N. Y. (variety woodworkers, etc.).
Buss Machine Works, The, Holland, Mich. (planers, shapers, saw benches, cut off saws, trucks, etc.)
Carey, W. W., Co., Lowell, Mass.
Chapmans, T. M., Sons Co., Old Town, Me. (bolters & box machinery).
Chase Turbine Mfg. Co., Orange, Mass. (lock corner and wire bound box and crate machinery, jointers, saw mills, planers, etc.).
Chattanooga Machinery Co., Chattanooga, Tenn. (Insulator pin, cross arm, crate machinery and gang rip saws.)
Clark Bros. Co., Olean, N. Y. (band saw machines).
Colladay Machine Works, Philadelphia, Pa. (jointers, shapers, lathes, boring machines, band, scroll and swing saws, saw benches, molders, tenoners.)
Conrad, A. G., Chicago (saw gummer, sharpener, jointer).
Cordesman—The Cordesman-Rechtin Co., Cincinnati, O. (for all purposes, new and pre-used.)
Corinth Machinery Co., Corinth, Miss.
Crescent—The Crescent Machine Co., Leetonia, O. (portable variety woodworkers, woodworking **planers, swing cut-off saws, grinders' disk, boring machines, matchers, band saws, saw tables,** jointers.)
Curtis Machine Corp., Jamestown, N. Y. (sanding, polishing, rubbing and "Lochman" carving machine.)
Defiance Machine Works, Defiance, O. (automobile wheel and handle machine, gun stock lathes and carriage, handle, chain, table, hoop, spool, wooden disk and wood pulley mach'y).
De Walt Products Co., Leola, Pa. (Universal woodworkers).
Diamond Iron Works, Minneapolis, Minn. (band saw machines).
Dodds, Alexander, Co., Grand Rapids, Mich. (carving, dovetailing, saw tables, swing, cut-off saws.) "Dodds."
Emmert Mfg. Co., Waynesboro, Pa. (band saw machines, jointers, etc.).
Empire Machine Works, Mt. Morris, N. Y. (spoke, wheel and handle machine, gun stock lathes and sanders).
Enterprise Company, The, Columbiana, O. (saw mills, etc.).
Estes, E. B., & Sons, New York, N. Y. (lathes, etc.).
Farmington Machine & Supply Co., Farmington, Me. (boring machines, dowel machines, saw arbors, etc.)
Farquhar, A. B., Co., Ltd., York, Pa. (saw mills, etc.).
Fay, J. A., & Egan Co., Cincinnati, Ohio (jointers, moulders, mortisers, etc.).
Fischer, Busmeyer & Maloney Machine Co., Covington, Ky. (belt sander).
Fischer Machine Works, Chicago, Ill.
Flint & Walling Mfg. Co., Kendallville, Ind. (saw mills, etc.).
Fox Machine Co., Inc., Jackson, Mich.
Frew Machine Co., The, Philadelphia, Pa.
Frick Co., Waynesboro, Pa. (edgers, etc.).
Gage Mfg. Co., Gardner, Mass. (band saw machines).
Gallmeyer & Livingston Co., Grand Rapids, Mich. (band saw machines, jointers, universal woodworkers, boring machines, routers, spindle carvers, saw tables, etc.).
General Supply & Machine Co., Meridian, Miss. (edgers, etc.).
Goodspeed Machine Co., Winchendon, Mass. (tub and pail, bobbin and spool, clothespin, handle, novelty turning, planers, etc.)
Gordon Hollow Blast Grate Co., Greenville, Mich. (edgers).
Grammes, L. F., & Sons, Allentown, Pa. (planers, saw tables).
Greaves-Klusman Tool Co., Cincinnati, O.
Greenfield Tap & Die Corp., Greenfield, Mass. (lathes).
Greenlee, Bros., & Co., Rockford, Ill. (boring, mortising, sawing lathes, hollow chisels).
Hall & Brown Woodworking Machine Co., St. Louis, Mo. (boring, matching, printing, sanding, grinding, jointing, mortising, and dowel machines, lathes, planers, moulders, tenoners and saws.)
Hawker, W. S., Mfg. Co., Dayton, O. (dowel machines).
Hendley & Whittemore Co., Beloit, Wis. (saw tables).
Hermance Machine Co., Williamsport, Pa. (dado, planers, matchers, tenoners, moulders, sanders, mortisers, sash stickers, door and sash clamps, self-feed rip saws, cut off and combination saws, planers, etc.).
Heston & Anderson, Fairfield, Iowa. (Portable electric saws: bench band, bench cut-off, bench rip.)
Hill-Curtis Co., Kalamazoo, Mich. (edgers, planers, saw mills, etc.).
Holmes Machinery Co., E. & B., Buffalo, N. Y. (cut-off saws).
Hooker Mfg. Corp., St. Johnsbury, Vt. (saw tables, sawing outfits).
Huntsville Foundry & Machine Co., Huntsville, Ala. (lathes, etc.).
Hutchinson Mfg. Co., Norristown, Pa. (variety woodworkers).
Imperial Metal Products Co., Grand Rapids, Mich. (lathes, etc.).
Ingersoll-Rand Co., New York, N. Y. (boring).
It's a Baker—Baker Bros., Toledo, O.
Jenkins-Falls, Jenkins Hayes, Falls, Jenkins, Jenkins-Dauber—Jenkins Machine Co., Sheboygan, Wis. (rip saws, tenoners, glue jointers, veneer jointers, cut-off saws, mortisers, engine stops, cutter grinders, feed attachments, planers, borers, sash and door machines, etc.)
Kline, Lewis T., Alpena, Mich. (edgers, lathes, etc.).
Klotz Machine Co., Sandusky, O. (handle machinery, lathes).
Lane Mfg. Co., Montpelier, Vt. (edgers, planers, saw mills, etc.).
Little Giant—Fisher & Davis Mfg. Co., St. Louis, Mo. (planers, matchers, molders).
Little Giant Co., Mankato, Minn. (band saw machines, lathes, etc.).
McDonough Mfg. Co., Eau Claire, Wis. (hand resaws).
Machinery Company of America, Big Rapids, Mich. (jointers, saw tables, etc.).
Mahoney Machinery Co., Erie, Pa. (edgers).
Manco—Mann Corporation, Kankakee, Ill. (cutting-off).
Mattison Machine Works, Rockford, Ill. (turning lathes, belt sanders, dado heads, varnish rubbing, molders, rip saws.)
Mereen-Johnson Machine Co., Minneapolis, Minn. (band saw machines, hopper feed equalizer for cutting short lengths).
Merritt Standard—Merritt Mfg. Co., Lockport, N. Y.
Mershon, Wm. B., & Co., Inc., Saginaw, Mich. (Sawmills, resawers and band sawers.)
Millers Falls Co., Millers Falls, Mass. (lathes, boring machines, etc.).
Multnomah Iron Works, Portland, Ore. (edgers, etc.).
Muskegon Machine Co., Muskegon, Mich.
Nazel Engineering & Machine Works, Philadelphia, Pa. (jointers, etc.).
New Britain Machinery Co., The, New Britain, Conn. (mortising, dadoing, setting, filing machines, clamps, etc.). "New Britain."



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No matter what your requirements in lathes or woodworking machinery may be, there's a Sidney-Built machine suited for your purpose. And once you have a Sidney product you'll never worry about service. Our guarantee covers every piece of Sidney equipment for its entire life. Let us send you our catalog on the particular line of machines you want. Better still, let our engineers aid you in solving your machinery problems. Their services will cost you nothing. Address Dept. 2202 for information today!

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FAMOUS Woodworking Equipment

THE SIDNEY MACHINE TOOL CO., Sidney, O.

Newman Machine Co., Greensboro, N. C. (flooring machines, molders, planers, matchers, surfacers, hand planers, door and blind clamps, tenoners, cut-off saws, re-saws, rip saws, gang edgers, swing saws, lath machinery, knife grinders, lumber trimmers).
Noble Machine Co., Ft. Wayne, Ind. (lathes).
Northwestern Steel & Iron Works, Eau Claire, Wis. (saw mills, etc.).
Oakley & Jansen Machinery Co., Parkersburg, W. Va.
Ober Mfg. Co., Chagrin Falls, O. (lathes, saws, boring machines, sanders, etc.).
Ohio-Dayton Saw Gauge Co., Dayton, O. (swing saw gage).
Onan, D. W. & Sons, Minneapolis, Minn. (saw tables, etc.).
Orum, Morris L., Philadelphia, Pa. (special).
Oshkosh Mfg. Co., Oshkosh, Wis. (band saw machines, saw mills, variety woodworkers).
Parks—Parks Ball Bearing Machinery Co., Cincinnati, O. (saw mills, etc.).
Partridge, E. O., Chicago, Ill. (lathes, etc.)
Phillips Line—Atlas Mfg. Co., Orlando, Fla. (Window frame.)
Phoenix Mfg. Co., Eau Claire, Wis.
Power, L., & Co., Philadelphia, Pa. (tenoners, etc.).
Pryibil, P., Machine Co., New York. (band saws, boring machines, jig saws, circular saws, cross cut gauges, saw guards, moulding machines, sanders). "Pryibil."
Ripley, Lewis, R., Fitchburg, Mass. (lathes, saw tables).
Root Co., B. M., York, Pa. (boring machine and saw tables).
Saint Paul Machinery Mfg. Co., St. Paul, Minn. (carving and sanding machines).
San Antonio Machine & Supply Co., San Antonio, Tex. (saw tables, etc.)
Scarbrough Mfg. Co., Chattanooga, Tenn. (edgers, saw mill, cooperage, moulding, matching, box board, lath and picket, planing, shingle, trimmers). "De Loach," "Scarbrough."
Seneca Falls Machine Co., Seneca Falls, N. Y. (lathes).
Shawver Co., The, Springfield, O. (fluting and twisting machine, oval and circle cutters, disc sanders.)
Sidney Machine Tool Co., Sidney, O. (band saws, jointers, planers, shapers, turning lathes, borers, universal woodworkers, saw tables).
Simplex—The Kent Mfg. Co., Faribault, Minn. (sanders.)
Sinker-Davis Co., The, Indianapolis, Ind. (band saw machines, saw mills, planers, saw tables).
Smith Machine Co., H. B., Smithville, N. J. (band saws, planers, saw benches, molding, mortising, sanding and tenoning machines).
South Bend Lathe Works, South Bend, Ind. (lathes).
Standard Machine Tool & Supply Co., Kansas City, Mo. (variety woodworkers).
Standard Saw Mill Machinery Co., Erie, Pa. (edgers, saw mills).
Stetson-Ross Machine Wks., Seattle, Wash. (matchers, surfacers, sizers).
Superior—Jones Superior Machine Co., Chicago, Ill. (shapers, jointers, planers, boring machines, band saws, combination saws, swing saws).
Tannewitz Works, The, Grand Rapids, Mich. (crescent dowel machines, band saw machines, saw tables, etc.)
Taylor-Brown Mfg. Co., Worcester, Mass. (Saw bench and boring machine.)
Tidey, Marcus B., Newark, N. J. (saw tables).
Tidey, Wesley, Newark, N. J.
Towsley, John T., Mfg., Co., Cincinnati, O. (planers, planers and jointers, tenoning machines, band scroll saws, saw benches, swing cut-off saws, wood lathes, boring machines).
Trevor Mfg. Co., Lockport, N. Y. (Gauge lathes, rod and dowel machines, heavy power feed lathes, irregular form lathes, tumbling machines, sanding machines, cross and drag saw machines, bolting machines, barkers, short log saw mill, pendulous sawing machine, etc.)
United States Machine Co., Williamsport, Pa. (edgers, saw mills, saw tables).
Victory Foundry & Machine Co., Inc., Buffalo, N. Y. (Planers, matchers, moulders, surfacers, jointers, lath mills; band, scroll, rip, swing and cut-off saws, saw benches, tenoners and mortisers).
Virginia Wheel & Hole Sawing Machine Co., Roanoke, Va. (for cutting wheels and holes).
Wallace, J. D. & Co., Chicago, Ill (jointers, planers, band saw machines, saw tables).

New! J. D. Wallace & Co. are placing a new line of portable woodworking machines on the market. This will be a complete line including jointers, circular saws, band saws, hand saws, etc.

POPULAR PRICED LINE

This line will sell at very attractive prices, yet, because of quantity manufacturing methods used, the quality of the new line will be exceptionally high.

HIGH DISCOUNT TO DEALERS

This new line will be marketed entirely through the dealer and will carry a liberal discount.

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PRODUCT OF J. D. WALLACE & CO.

J. D. WALLACE & CO., 2801 Wilcox St., CHICAGO, ILL.

Wardwell Mfg. Co., The, Cleveland, O. (saw tables, etc.)
Waymoth, A. D. & Co., Fitchburg, Mass. (lathes).
Whipp Machine Tool Co., The, Sidney, O.
Whitlock, J. W. & Co., Rising Sun, Ind. (for fluting, reeding, lining and rosette work).
Whitney, Baxter D., & Son, Winchendon, Mass. (boring machines, mortising machines, saw tables).
Woods, S. A., Machine Co., Boston, Mass. (boring machines, planers, matchers, moulders, surfacers, flooring machines, sizers, mortisers, saws, grinders, etc.)
Woodworkers Tool Works, Chicago, Ill. (saws, knives, etc.).
Wysong & Miles Co., Greensboro, N. C. (mortisers, sand belt machines, band saws, shapers, dovetailers, chair and furniture machinery).
Yates-American Machine Co., Rochester, N. Y. (saw mill machinery).

MALLETS, FIBRE.

Kaalot—Kaalot Mfg. Co., Chicago, Ill.

MALLETS, RAWHIDE AND LEATHER.

Beaudry, T. Joseph & Son, Marlboro, Mass.
Brockton Mallet Co., Brockton, Mass.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Holbrook Rawhide Co., Providence, R. I.
New Tip—The Bilton Machine Tool Co., Bridgeport, Conn.
Waterson, J. M., Detroit, Mich.

MALLETS, RUBBER AND COMPOSITION HEAD.

Cincinnati Rubber Mfg. Co., Cincinnati, O.
Diamond Rubber Co., Inc., The, Akron, O.
Goodrich—The B. F. Goodrich Co., Akron, O.
Estes, E. B., & Sons, New York, N. Y.
Mechanical Rubber Co., The, Cleveland, Ohio.
Miller Rubber Co. of New York, The, Akron, O.
New Tip—The Bilton Machine Tool Co., Bridgeport, Conn.
New York Belting & Packing Co., New York, N. Y.
Osgood, J. L., Tool Co., Buffalo, N. Y.
Quaker City Rubber Co., Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
United States Rubber Co., New York.
Waterson, J. M., Detroit, Mich.

MALLETS, WOOD.

Bernz, Otto, Co., Newark, N. J.
Drew, C., & Co., Kingston, Mass.
Hasco—H. A. Stiles & Co., Boston, Mass.
Newton Falls Mfg. Co., The, Newtons Falls, O.
Novelty Turning Co., Norway, Me.
Piqua Handle & Mfg. Co., Piqua, O.
Sandusky Tool Corp., Sandusky, O.
Stanley Rule & Level Co., New Britain, Conn.
Union Hardware Co., Torrington, Conn.

MANDRELS, LATHE, EXPANDING.

Alert Tool Co., Philadelphia, Pa. (roller grip).
Brown & Sharpe Mfg. Co., Providence R. I.
Champion—Western Tool & Mfg. Co., Springfield, O.
Chapin-Skelton Corp., Syracuse, N. Y.
Cleveland Twist Drill Co., The, Cleveland, O.
Detroit Twist Drill Co., Detroit, Mich.
Etco—Eastern Tube & Tool Co., Inc., Brooklyn, N. Y.
Hannifin Mfg. Co., Chicago, Ill.
Le Count, W. G., Tool Works, South Norwalk, Conn. "Le Count."
Lutz—Lutz Company, Inc., Philadelphia, Pa.
McCrosky—McCrosky Tool Corp., Meadville, Pa.
M. E. C.—Manufacturers' Equipment Co., Chicago, Ill. (air operated).
Moore & Moore, Inc., Reading, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Nicholson—W. H. Nicholson & Co., Wilkesbarre, Pa.
Paramount Reamer Co., Parkersburg, W. Va.
Standard Tool Co., Cleveland, O.
Union Twist Drill Co., Athol, Mass.
Up-to-Date Tool Co., Waltham, Mass.

MANDRELS, LATHE, NON-EXPANDING.

Detroit Twist Drill Co., Detroit, Mich.

MANDRELS, SAW.

American Saw Mill Machinery Co., Hackettstown, N. J.
Atkins—E. C. Atkins & Co., Indianapolis, Ind.
Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Cleveland Machinery Co., Cleveland, Tenn.
Clizbe Bros. Mfg. Co., Plymouth, Ind. "Crown."
Crescent—Columbus Mfg. Co., Belleville, Ill.
Disston, Henry, Sons Co., Philadelphia, Pa.
Grammes, L. F., & Sons, Allentown, Pa.
Hill-Curtis Co., Kalamazoo, Mich
Jones—Huntsville Foundry & Machine Works, Huntsville, Ala.
Kerrihard Co., The, Red Oak, Ia.
Ober Mfg. Co., The, Chagrin Falls, O.
Ohlen-Bishop Co., The, Columbus, O.
Patridge, E. O., Chicago, Ill. "Partridge."
Southern—Southern Saw Works, Atlanta, Ga.
Wheland—The Wheland Co., Chattanooga, Tenn.

MANDRELS, TINNERS' AND BLACKSMITHS'.

Adams Co., The, Dubuque, Ia. "Adams."
Little Giant, Green River—B. B. Noyes Co., Greenfield, Mass.
Peck, Stow & Wilcox Co., The, Southington, Conn.
Southern—Southern Saw Works, Atlanta, Ga.

MANHOLES AND HANDHOLES, BOILER AND TANK.

Bruce-Macbeth Engine Co., The, Cleveland, O.
Glasgow Iron Co., Pottstown, Pa.
Ideal—Milwaukee Boiler Mfg. Co., Milwaukee, Wis.
Lukens Iron & Steel Co., Coatesville, Pa.

MANIFOLDS, STEAM.

Cornell & Underhill, New York, N. Y.
Koven, L. O., & Bro., Jersey City, N. J.
Limbert & Co., Geo. B., Chicago, Ill.
Peco—Pittsburgh Engineering Co., Jeannette, Pa.
Pittsburgh Valve & Fittings Co., Barberton, O.
Walworth Company, Boston, Mass.

MANOMETERS.

American Blower Co., Detroit, Mich.
Easy Read—Bacharach Industrial Instrument Co., Pittsburgh, Pa.
Republic Flow Meters Co., Chicago, Ill. "Gebhardt," "Republic."
Simplex Valve & Meter Co., Philadelphia, Pa.

MARBLE, FOR PLUMBING, INTERIOR AND ELECTRICAL WORK.

Butler Phillip H., & Son Co., Somerville, Mass.
Rutland Marble Mfg. Co., Rutland, Vt.
Wolff Mfg. Corp., Chicago, Ill.

MARKERS, PIPE TAG.

Master Markers—Pannier Bros. Stamp Co., Inc., Pittsburgh, Pa.

MARKERS, SEWER.

Hays Mfg. Co., Erie, Pa.

MARKERS, TAIL END, RAILWAY CAR.

Handlan—Handlan-Buck Mfg. Co., St. Louis, Mo.

MASKS, CHIPPING AND BABBITING.

Pulmosan—Pulmosan Safety Equipment Co., Brooklyn, N. Y.

MASKS, GAS.

Absorbit, Double Absorbit—The Protecto Safety Appliance Co., Newark, N. J.
American Atmos Corp., Pittsburgh, Pa. "Atmos."
Burrell—Mine Safety Appliances Co., Pittsburgh, Pa.
Hygeia—Hygeia Respirator Co., Inc., New York, N. Y.
Dontfear—Pulmosan Safety Equipment Co., Brooklyn, N. Y.
Puretha—H. N. Elmer, Chicago, Ill.
Safety Equipment Service Co., The, Cleveland, O.

MASKS, WELDERS.

Meeco—Modern Engineering Co., St. Louis, Mo.

MATS, BATH, CORK.

Armstrong Cork & Insulation Co., Pittsburgh, Pa.

MATS, BATH, RUBBER.

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Buckley, J. W., Rubber Co., New York, N. Y.
Diamond Rubber Co., Akron, O.
Cantslip Mfg. Co., The, New York, N. Y.
Goodrich, B. F. Co., The, Akron, O.
Mechanical Rubber Co., New York, N. Y.
New York Belting & Packing Co., New York, N. Y.
Republic Rubber Co., Youngstown, O.
Silver & Co., Brooklyn, N. Y.
United & Globe Rubber, Inc., Trenton, N. J.

MATS, LEATHER.

Page Belting Co., Concord, N. H.

MATS AND MATTING, RUBBER.

Boston Woven Hose & Rubber Co., Cambridge, Mass. (Trade names—Automobile, Lenox, Pitcher, Pyramid, Tiger.)
Bucko—Buckley Rubber Co., J. W., New York, N. Y.
Cantslip Mfg. Co., The, New York, N. Y. (Trade names—Cantslip, Standsure.)
Cincinnati Rubber Mfg. Co., The, Cincinnati, O.
Double Service Packing Co., Philadelphia, Pa.
Diamond Rubber Co., Inc., Akron, O. Trade names, Gulf, Sphinx, Clipper, Defiance, Titan, Moose.
Essex—Essex Rubber Co., Inc., Trenton, N. J.

Flex-Braid—W. H. Salisbury & Co., Inc., Chicago, Ill.
Gutta Percha & Rubber Mfg. Co., New York, N. Y.
Hewitt Rubber Co., Buffalo, N. Y.
Hudson—Hudson Mechanical Rubber Co., New York, N. Y.
Johnson Co., The Henry, Jersey City, N. J.
Mastinite—La Favorite Rubber Mfg. Co., Paterson N. J.
Maguire Rubber Co., New York, N. Y.
Mechanical Rubber Co., Cleveland, Ohio.
Niagara—Buffalo Weaving & Belting Co., Buffalo, N. Y.
New York Belting & Packing Co., New York, N. Y. "Dundee," "Nahma," "N. P. M." "Nybnob," "Pyramid."
Pinnacle—Goodrich Rubber Co., B. F., Akron, O.
Quaker City Rubber Co., Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Union Rubber & Asbestos Co., Trenton, N. J.
United & Globe Rubber, Inc., Trenton, N. J.
Voorhees Rubber Mfg. Co., Jersey City, N. J.
Wilbow—Williams-Bowman Rubber Co., The, Cicero, Ill.

MATS, SINK AND DRAINBOARD.

Canfield, H. O., Co., Bridgeport, Conn.
Cantslip Mfg. Co., New York, N. Y.
Clover—J. C. Eichman Mfg. Co., Baltimore, Md.
Diamond Rubber Co., Akron, O.
Goodrich, B. F., Rubber Co., Akron, O.
Lucky Strike—Lavelle Rubber Co., Chicago.
Mechanical Rubber Co., New York, N. Y.
Mott, J. L., Iron Works, Trenton, N. J.
New York Belting & Packing Co., New York, N. Y.
Philadelphia Sheet Metal and Wood Works, Philadelphia, Pa. (wood).
Quaker City Rubber Co., Philadelphia, Pa.
Republic Rubber Co., Youngstown, O.
Shwab Bros. Co., New York, N. Y. (wood).
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Standard Tank & Seat Co., Inc., Camden, N. J.

MATS, STEEL.

Cyclone Red Tag—Cyclone Fence Co., Waukegan, Ill.
Everlasting—Cary Mfg. Co., Brooklyn, N. Y.
Hercules—La Porte Mat & Mfg. Co., La Porte, Ind.
Pratt, Wm. E., Mfg. Co., Chicago, Ill. (wire).
Wear Proof—Wear Proof Mat Co., Chicago, Ill. (steel and asphalted felt).

MAULS, WOODEN.

Duffy Manufacturing Co., Chicago, Ill.
Estes, E. B., & Sons, New York, N. Y.
Hubbard & Co., Pittsburgh, Pa.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Novelty Turning Co., Norway, Me.
Pittsburgh Block & Mfg. Co., Pittsburgh, Pa.
Pollard, Joseph G., Co., Inc., Brooklyn, N. Y.

MAULS, STEEL AND IRON.

American Scale Co., Kansas City, Mo.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Verona Tool Works, Pittsburgh, Pa.
Warren Tool & Forge Co., The, Warren, O. "Quikwerk."

MEASURES, OIL, FLEXIBLE SPOUT.

Huffman Mfg. Co., The, Dayton, Ohio. "Spillproof."

MENDERS, HOSE AND PIPE.

American Brass & Copper Co., The, New York, N. Y.
American Foundry & Mfg. Co., St. Louis, Mo. (brass and iron).
Callahan Co., The Cornelius, Boston, Mass.
Cooper Hose Mender Co., Providence, R. I.
Dallett—Dallett Company, Philadelphia, Pa.
Eclipse—John C. Kupferle Foundry Co., St. Louis
Elkhart Brass Mfg. Co., Elkhart, Ind.
Farnan Brass Works, Cleveland, O.
Fries & Co., Buffalo, N. Y.
Gibbs—W. D. Allen Mfg. Co., Chicago, Ill.
Ideal—The Rauch Mfg. Co., Galena, Kans.
Knox—Knox Mfg. Co., Inc., Philadelphia, Pa.
Medina Stamping & Machine Co., Inc., Medina, N. Y.
Nob-Lok—C. A. Claflin Co., Boston, Mass.
Perfect Clinching—L. R. Nelson Mfg. Co., Peoria, Ill.
Pratt, Wm. E. Mfg. Co., Chicago, Ill.
Schlangen Bros. Co., Chicago, Ill.
Seattle Brass Co., Seattle, Wash.
Sherman Mfg. Co., H. B., Battle Creek, Mich. (iron and brass).
Stulp—Fred J. Stulp, Muskegon, Mich.
Walworth Company, Boston, Mass.
Yankee—Boston Woven Hose & Rubber Co., Cambridge, Mass.

METAL, BEARING, ANTI-FRICTION AND BABBITT.

(For Bronze Bearing Metals see "Bars, Bronze.")

Ackermite Co. of America, Janesville, Wis.
Adamant—Magnolia Metal Co., New York, N. Y.
Advance—United States Reduction Co., Chicago, Ill.
Agrilite—American Injector Co., Detroit, Mich.
Ajax Bull—The Ajax Metal Co., Philadelphia, Pa.
Albuquerque Foundry & Machine Works, Albuquerque, N. M.
Allan—A. Allan & Son, Harrison, N. J.
Allen's Triple Alloyed—L. D. Allen Metal Works, Chicago, Ill.
American Crucible Products Co., Elyria, O.
American Zinc, Lead & Smelting Co., Boston, Mass.
Ampco Bronze—American Metal Products Co., Milwaukee, Wis.
Argus Smelting Co., New York, N. Y. "Edison."
Armature—Union Smelting & Refining Co., Newark, N. J.
Atlas—Pacific Metal Works, San Francisco, Cal.
Badger—Badger Gas & Gasoline Engine Co., Kansas City, Mo.
Bear Brand Babbitt—I. Shonberg, Inc., Brooklyn, N. Y.
Belmont—Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Bigsby Metals Co., The, East Chicago, Ind. (Trade names—Golden Grain, Lucky Strike, Nugget, Prize Ribbon, Shamrock, Velvet).
Birkenstein, S., & Sons, Inc., Chicago, Ill.
Blatchford—E. W. Blatchford Co., Chicago, Ill.
B. M. Co.—Bronze Metal Co., New York, N. Y.
Breuer, C. R., Smelting & Refining, Cincinnati, O.
Bull—The Ajax Metal Co., Philadelphia, Pa.
Cadman's Aluminum, Acorn, Bearite—A. W. Cadman Mfg. Co., Pittsburgh, Pa.
Canfield, M. C., Sons Co., Newark, N. J. "First premium."
Chadwick-Boston Lead Co., Boston, Mass. (Trade names—Extra Fine, Genuine, Reliable.)
Charleston Lead Works, The, Charleston, S. C.
Chicago Bearing Metal Co., Chicago, Ill.
Chicago Smelting & Refining Co., Chicago, Ill.
Climax—Pacific Metal Works, San Francisco, Cal.
Clover Leaf—E. A. Williams & Son, Inc., Jersey City, N. J.
Codd Tank & Specialty Co., Baltimore, Md.
Cole Non-Grip—Cole Engineering Co., Chattanooga, Tenn.
Copaloy, Standard Genuine—Michigan Smelting & Refining Co., Detroit, Mich.
Cramp, Wm., & Sons Ship & Engine Building Co., Philadelphia, Pa. (Trade names—Parsons' White Brass, Parsons' Manganese Bronze, Cramp's Super-strength Bronze.)
Crilly Mercury Anti-Friction Metal Corp., Jersey City, N. J.
Cypress—Brady Brass Co., Jersey City, N. J.
Division Smelting & Refining Co., Chicago, Ill. "Divco."
Dixie—Smith-Courtney Co., Richmond, Va.
Dodge Mfg. Corp., Mishawaka, Ind. (Trade names—Genuine Aluminum, Royal, Stando).
Dutch Boy—National Lead Co., New York, N. Y.
Eagle Smelting & Refining Works, New York, N. Y.
Eclipse—Pacific Metal Works, San Francisco, Cal.
Edna Brass Mfg. Co., The, Cincinnati, O.
Empire Metal Co., Syracuse, N. Y.
Empire—John Finn Metal Works, Seattle, Wash.
Eternal—Stratton & Bragg Co., Petersburg, Va.
F. & H.—Franz-Holbrook Bronze Co., Newark, N. J.
Fahrig Bearing Metal Co., New York, N. Y.
Federal-Mogul Corp., Detroit, Mich.
Federated Metals Corp., Chicago, Ill. "Liberty Motor Genuine," "Merit Metal," "XXXX Nickel," "Olympia."
Ferer, Aaron & Sons, St. Louis, Mo. "Sentinel."
Finns Armature Metal—John Finn Metal Works, San Francisco, Calif.
Frictionless—Frictionless Metal Co., St. Louis, Mo.
G. V. C. Marine—Paul S. Reeves & Co., Philadelphia, Pa.
Gardiner Metal Co., Chicago, Ill.
Garratt & Co., W. T., San Francisco, Cal.
Genuine Sovereign, Silverine, AA 1 Copper-Tin.
Glacier—Glacier Metal Co., Richmond, Va.
A. Gilbert & Sons Brass Foundry Co., St. Louis, Mo. Trade Names—Gilbert Babbitt and Anti-friction Metal in following grades: "C" Nickel Babbitt; "D" Nickel Babbitt; "E" Babbitt; "F" Copper Hardened Metal; "G" Gas Engine Babbitt; "H" Rolling Mill Metal; "I" Standard Anti-friction; "J" Standard Anti-friction; "K" Flour Mill Journals; "L" Car Box Lining Metal; No. 1, No. 2, No. 3 and No. 4 Babbitt Metal; Original Genuine Babbitt and Special Genuine Babbitt.
Globe Box Metal—Hayden Supply Co., Grand Rapids, Mich.
Globe Metal Co., Chicago, Ill.
Graham, James, & Co., New Haven, Conn.
Great Lakes Chemical Works, Detroit, Mich.
Hall Mfg. Co., Harrison, N. J.
Helmet—Chas. H. Besly & Co., Chicago, Ill.

MONARCH
Ball Babbitt

The Bearing Metal That's Different

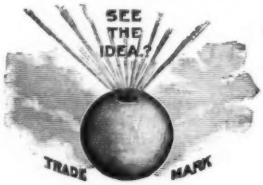
MONARCH BALL, the Steel Process Babbitt, is the only bearing metal that is cast in ball form—the only bearing metal that carries its own flux—the only bearing metal ever granted a mechanical patent by the United States Government.

Monarch Ball Metal has a sales policy that for 33 years has actually worked out to the entire satisfaction of a large group of Mill Supply Distributors. Ask for booklet containing some of their letters.

MONARCH METAL CO.

119 South Lincoln St. Chicago, Ill.

Assoc. Member, Nat'l Supply and Machinery Distributors' Assn.



(See our Advertisement under "Bars, Bronze, Cored and Solid")

Hoyt Metal Co., St. Louis, Mo. (Trade names—Genuine "A," Eagle "A.")
Illinois Smelting & Refining Co., Chicago, Ill.
Iron Age—Union Smelting & Refining Co., Newark, N. J.
Jacobson, I. M., Sons, Co., Detroit, Mich. "Motex."
Johnson Bronze Co., New Castle, Pa.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Juanita—Wheeling Corrugating Co., Wheeling, W. Va.
Laurel—Kinsey & Mahler Co., Peoria, Ill.
Lawrenceville Bronze Co., Pittsburgh, Pa.
Lehman Bros., Hoboken, N. J.
Lewis—John T. Lewis & Bros. Co., Philadelphia, Pa.
Lissberger, Marks, & Son, Inc., Long Island City, N. Y. (Trade names—Anti-Friction, Armature, Bee, Best, Everlasting, Excelsior, Improved Anti-Friction, Journal, Nickel Genuine, Leddellite, Semper Idem, Star, Torrey).
Los Angeles Smelting Co., Los Angeles, Cal.
Lumen Bearing Co., Buffalo, N. Y. (Trade names—Buffalo, Old Genuine, Cosmos, Stannum, Aristocrat, S. A. E. Standard, Yankee, Lotus, Leantin, Lubeco.)
Macwhyte Co., Kenosha, Wis.
Magnolia Metal Co., New York, N. Y.
Medart Company, The, St. Louis, Mo.
Medium—Chadwick Boston Lead Co., Boston, Mass.
Merchant & Evans Co., Inc., Philadelphia, Pa. "Hard Genuine," "1, 2, 3, 4," "Standard Grade," "Superior," "Standard Genuine," "Universal."
Metal Sales Co., Jersey City, N. J. "Crilly."
Millar, Chas., & Son Co., Utica, N. Y.
Mogul—Federal-Mogul Corp., Detroit, Mich.
Monarch Ball Metal—Monarch Metal Co., Chicago, Ill.
Monogram—**John T. Lewis & Bros. Co., Baltimore, Md.**
More-Jones Brass & Metal Co., St. Louis, Mo. (Trade names—Armature, Crescent, Hoo-Hoo, Aluminum, Extra, Improved, Phosphor Bronze, Regent, Rex, Nickel, Genuine.)
Multnomah Metal Works, Portland, Ore. "Multnomah."
Murdoch, H., & Co., Pittsburgh, Pa. Trade names—Mill Bearing, Murdoch Railroad, Vanadium Genuine.
Murphy Metals Co., Chicago, Ill. Trade names—Broncho, Ideal, Old Reliable, Samson, Master, Marathon, Mercury, Marvel.
National Lead Co., New York, N. Y.
National Smelting & Refining Co., Detroit, Mich. "Bull Dog."

"DIVCO" Brands Babbitts and Solders

"DIVCO" "CN" NICKEL, for extraordinary high speed and heavy pressure.

"DIVCO" "CA" ALUMINUM, toughest babbitt made.

"DIVCO" COPPER HARDENED, for machinery, etc., having a speed up to 2500 R. P. M.

"DIVCO" GENERAL SERVICE AND ANTI-FRICTION BABBITT.

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Also Standard No. 1, 2, 3 and 4 Babbitt metals.

Also Manufacturers of Solder according to your specifications in Bar, Ingot, Capping, Meter, Pig, Triangular and Wire.

A trial will convince you of the high quality of "DIVCO" Products. Let us hear from you.

DIVISION SMELTING & REFINING CO.
836 W. Kinzie St. Chicago, Ill.

Noheet—Lubricating Metal Co., New York.
Non-Grip—Cole Engineering Co., Chattanooga, Tenn.
North American Smelting Co., Philadelphia, Pa. "Vulcan," "H. S."
North Star Foundry Co., Minneapolis, Minn.
Ohio Metal Co., Columbus, O. "Betarbest."
Old Coketown—Riverside Metal Refining Co., Connellsville, Pa.
Pacific Metal Works, San Francisco, Cal. "Rex."
Perfection—Eastwood Wire Mfg. Co., Belleville, N. J.
Peerless-Extra, Peerless-High Speed, Peerless-Silver Genuine, Peerless Special—The Peerless Alloy Co., Denver, Colo.
Phoenix—John T. Lewis & Bros. Co., Baltimore.
Phoenix—National Lead Co., New York, N. Y.
Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
Premium Metal & Packing Co., Inc., Wilkinsburg, Pa. (Trade names—Premium Alumaloy, Motor Alumaloy, Special Alumaloy, Thermite Alumaloy, Murdoch's Bestbearing, Murdoch's Superior Genuine).
Promet—The American Crucible Products Co., **Elyria, O.**
Puget Sound Metal Works, Tacoma, Wash.
Quaker Metal—Monarch Metal Co., Chicago, Ill.—"Ladle Bronze."
Radium—Hewitt Sales Co., Detroit, Mich.
Rainbow—Peerless Smelting & Refining Co., Philadelphia, Pa.
Ravenswood Brass Foundry Co., Chicago, Ill.
Raymond Lead Co., Chicago, Ill.
Record—Union Smelting & Refining Co., New York, N. Y.
Reeves Pulley Co., Columbus, Ind.
Rico—Richards & Co., Inc., Boston, Mass.
Rinehart—North American Copper Co., New York, N. Y.
Rinehart—Pittsburgh White Metal Co., Pittsburgh, Pa.
Rochester Lead Works, Rochester, N. Y.
Rogers—Rogers Metal Works, Kansas City, Mo.
Rowell Mfg. Co., Appleton, Wis.
Sandoval Zinc Co., Chicago, Ill.
Schlangen High Speed—Schlangen Bros. Co., Chicago, Ill.
Smiro—Smith & Robinson, Chicago, Ill.
Special—The Codd Tank & Specialty Co., Baltimore, Md.
Stromi—Standard Rolling Mill, Inc., Brooklyn, N. Y.
Sumet—Sumet Corporation, Buffalo, N. Y.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
Union Smelting & Refining Co., Inc., Newark, N. J. (Trade names—Armature, Copper Hardened, Economy, Naval Nickel, Record, Union Special, Union Genuine, Union White Brass, Usarco.)
United American Metals Corp., Brooklyn, N. Y. "Syracuse."
United Lead Co., New York, N. Y.
U. S. Reduction Co., Chicago, Ill.
U. S. A. Havabar, U. S. A. Long Life, U. S. A. Lodestar, U. S. A. Special—United Smelting & Aluminum Co., New Haven, Conn.
Vim—Bronze Metal Co., New York, N. Y.
Vulcan, Zenite—Zenite Metal Co., Indianapolis, Ind.
Wells Chemical Bronze Wks., Worcester, Mass.
Wensley Metal Products Co., The, Denver, Colo.
Wheeling Corrugating Co., Wheeling, W. Va.
Williams Alloy Co., Elyria, Ohio.
Wolff, L. A., Metal Works, Cincinnati, O.

METAL, "DELTA."

Phosphor Bronze Smelting Co., Philadelphia, Pa.

METAL "EVERDUR"

Du Pont Everdur Co., Inc., Wilmington, Del.

METALS, PERFORATED SHEET.

Allis-Chalmers Mfg. Co., Milwaukee, Wis.
Beckley Perforating Co., Garwood, N. J.
Cross Engineering Co., Carbondale, Pa.
Erdle Perforating Co., Rochester, N. Y.
Harrington & King Perforating Co., Chicago, Ill.
Johnston & Chapman Co., Chicago, Ill.
Keller Mechanical Engineering Corp., Brooklyn, N. Y.
Manhattan Perforated Metal Co., New York, N. Y. "Manperfmetco."
Mundt & Sons, Charles, Jersey City, N. J.
Nortmann-Duffke Co., Milwaukee, Wis.
Stimpson Co., Edwin B., Brooklyn, N. Y.
Toepfer, W., & Sons Co., Milwaukee, Wis.

METERS, AIR.

Bailey Meter Company, Cleveland, Ohio.
Builders Iron Foundry, Providence, R. I.
Connersville Blower Co., The, Connersville, Ind. (Rotary displacement.)
General Electric Co., Schenectady, N. Y.
Metric Metal Works, Erie, Pa.
Republic—Republic Flow Meters Co., Chicago, Ill.
Rotary—Rotary Meter Co., New York, N. Y.
Westinghouse, Positive—Pittsburgh Meter Co., Pittsburgh, Pa.

METERS, CONDENSATION.

American District Steam Co., North Tonawanda, N. Y. "Adsco," "Simplex."
Farnsworth—Farnsworth Mfg. Co., Boston, Mass.
Mason—Plant Engineering & Equipment Co., Brooklyn, N. Y.

METERS, CURRENT.

Berger, C. L., & Sons, Boston, Mass.
Gurley, W. & L. E., Troy, N. Y.

METERS, DISPLACEMENT.

Roots, P. H. & F. M., Co., Connersville, Ind.

METERS, FEED WATER.

American District Steam Co., North Tonawanda, N. Y.
Bailey Meter Company, Cleveland, Ohio.
"V" Notch—The Hoppes Mfg. Co., Springfield, O.
Hotwater—Hersey Mfg. Co., South Boston, Mass.
Lambert—Thomas Meter Co., Brooklyn, N. Y.
Niagara—Buffalo Meter Co., Buffalo, N. Y.
Pittsburgh Meter Co., Pittsburgh, Pa. (Trade names—Eureka, Keystone).
Simplex—Yarnall-Waring Co., Philadelphia, Pa.
Standard Water Meter Co., Philadelphia, Pa.
Trident—Neptune Meter Co., New York, N. Y.
Union Water Meter Co., Worcester, Mass.
Willcox—Willcox Engineering Co., Saginaw, Mich.
Worthington, Henry R., New York, N. Y.

METERS, FREQUENCY.

Bristols—Bristol Co., The, Waterbury, Conn.
Roller-Smith Co., New York, N. Y.
Weston—Weston Electrical Instrument Co., Newark, N. J.

METERS, FUEL WASTE.

Uehling Instrument Co., Paterson, N. J.

METERS, GAS.

American Meter Co., Chicago, Ill
Bailey Meter Company, Cleveland, Ohio.
Builders Iron Foundry, Providence, R. I.
Cleveland Gas-Meter Co., Cleveland, O.
Connersville Blower Co., The, Connersville, Ind. (Rotary displacement.)
Emco, Equitable—Equitable Meter Co., Pittsburgh, Pa.
Foulis, H. & McI.—Helme & McIlhenny, Philadelphia, Pa.
Frontier Meter Works, Buffalo, N. Y.
General Electric Co., Schenectady, N. Y.
Griffin & Co., John J., Philadelphia, Pa.
Hope Engineering & Supply Co., Pittsburgh, Pa.
La Porte Meter Co., La Porte, Ind. (prepayment).
Metric Metal Works, Erie, Pa.
Pittsburgh Meter Co., Pittsburgh, Pa. (Trade names—Ironclad, Westinghouse).
Republic—Republic Flow Meters Co., Chicago, Ill.
Rotary—Rotary Meter Co., New York, N. Y.
Spitzglass—Republic Flow Meters Co., Chicago, Ill.
Sprague—Sprague Meter Co., The, Bridgeport, Conn
Standard Meter & Mfg. Co., New York, N. Y.
Tufts Meter Co., Nathaniel, Boston, Mass.
Wylie—Equitable Meter Co., Pittsburgh, Pa.

METERS, GASOLINE.

Niagara—Buffalo Meter Co., Buffalo, N. Y.
Neptune Meter Co., New York, N. Y.
Pittsburgh Meter Co., Pittsburgh, Pa.
Wayne Tank & Pump Co., Ft. Wayne, Ind.
Western Oil Pump & Tank Co., St. Louis, Mo.

METERS, HOT WATER.

Alberger Pump & Condenser Co., New York, N. Y.
Builders' Iron Foundry, Providence, R. I.
Niagara—Buffalo Meter Co., Buffalo, N. Y.
Pittsburgh Meter Co., Pittsburgh, Pa.
Republic Flow Meters Co., Chicago, Ill.
Simplex Valve & Meter Co., Philadelphia, Pa.
Trident—Neptune Meter Co., New York, N. Y.
Union Water Meter Co., Worcester, Mass.

METERS, OIL.

Badger Meter Mfg. Co., Milwaukee, Wis. "Badger."
Ball and Fitts—Union Water Meter Co., The, Worcester, Mass.
Billow—National Supply Co., Chicago, Ill.
Bowser, S. F., & Co., Fort Wayne, Ind.
Empire—National Meter Co., New York, N. Y.
Niagara—Buffalo Meter Co., Buffalo, N. Y.
Pittsburgh Meter Co., Pittsburgh, Pa.
Richardson-Phenix Co., Milwaukee, Wis.
Trident—Neptune Meter Co., New York, N. Y.
Wayne Tank & Pump Co., Ft. Wayne, Ind.

METERS, STEAM FLOW.

Bailey Meter Company, Cleveland, Ohio.
Builders Iron Foundry, Providence, R. I.
Gebhardt, Republic—Republic Flow Meters Co., Chicago.
General Electric Co., Schenectady, N. Y.
Metric Metal Works, Erie, Pa.
St. John—American District Steam Co., North Tonawanda, N. Y.
Sarco Co., Inc., New York.
Simplex—American District Steam Co., N. Tonawanda, N. Y.

METERS, TESTING, PORTABLE.

Buffalo Meter Co., Buffalo, N. Y.

METERS, WATER.

American—Buffalo Meter Co., Buffalo, N. Y.
Badger—Badger Meter Mfg. Co., Milwaukee, Wis.
Builders Iron Foundry, Providence, R. I.
Cincinnati—American Valve & Meter Co., Cincinnati
General Electric Co., Schenectady, N. Y.
Hammond—Alberger Pump & Condenser Co., New York, N. Y.
Hersey Mfg. Co., South Boston, Mass. (Trade names—Compound, Detector, Disc, Proportional, Torrent.)
King Disk—Union Water Meter Co., Worcester, Mass.
Lambert—Thomson Meter Co., Brooklyn, N. Y.
National Meter Co., New York. (Trade names—Crown, Empire, Empire-Compound, Gem, Nash, Premier.)
Neptune Meter Co., New York, N. Y. (Trade names—Compound, Protectus, Trident Crest, Trident Disc.)
Niagara—Buffalo Meter Co., Buffalo, N. Y.
Nilo—Union Water Meter Co., Worcester, Mass.
Pittsburgh Meter Co., Pittsburgh, Pa. (Trade names—Arctic, Eureka, Keystone, Utility).
Trident—Philadelphia Meter Co., Philadelphia, Pa.
Republic Flow Meter Co., Chicago, Ill.
Simplex Valve & Meter Co., Philadelphia, Pa. "Simplex," "Pitot," "Venturi."
Watch Dog—Gamon Meter Co., Newark, N. J.
Willcox Engineering Co., Saginaw, Mich. "Willcox."
Worthington Pump & Machinery Corp, New York, N. Y.

METERS, WATER FLOW.

G-E—General Electric Co., Schenectady, N. Y.
Republic—Republic Flow Meters Co., Chicago, Ill.
Spray Engineering Co., Boston, Mass.
Weir V-Notch—Bailey Meter Co., Cleveland, O.
Yarnall-Waring Co., Philadelphia, Pa. "Yarway," "Lea V. Notch."

METERS, WATER, FOR FILLING SEWER FLUSH TANKS.

Buffalo Jet—Buffalo Meter Co., Buffalo, N. Y.
I. X. L.—Pacific Flush Tank Co., Chicago, Ill.
Modern Iron Works, Quincy, Ill.

MICROMETERS.

Almond, T. R., Mfg. Co., Ashburnham, Mass. "Almond."
Amthor Testing Instrument Co., Brooklyn, N .Y.
Bath, John, & Co., Worcester, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Columbia—Columbia Caliper Co., Marietta, Pa.
Goodell-Pratt Co., Greenfield, Mass.
G. T. D.—Greenfield Tap & Die Corp. Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Precision Thermometer & Instrument Co., Philadelphia, Pa.
Reed Reliable Line, Mike I Like—Reed Small Tool Works, Worcester, Mass.

Simplex Tool Co., Woonsocket, R. I.
Slocomb—J. T. Slocomb Co., Providence, R. I.
Starrett, The L. S., Co., Athol, Mass.
Universal—The Schellenbach-Hunt Tool Co., Cincinnati, O.

MILLBOARD, ASBESTOS.

Asbestos Products Co., Chicago, Ill.
Baltimore Roofing & Asbestos Mfg. Co., Asbestos, Md. "Bramco."
Brower, Charles R., & Co., Seattle, Wash.
Carey—Philip Carey Mfg. Co., Cincinnati, O.
Central Foundry Equipment Co., Columbus, Ohio.
Chicago Asbestos Mfg. Co., Chicago, Ill.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
Franklin Mfg. Co., Franklin, Pa.
General Asbestos & Rubber Co., Charleston, S. C. "Garco."
Janos Asbestos Co., New York.
Johns-Manville Corporation, New York, N. Y.
K. & M.—Keasbey & Mattison Co., Ambler, Pa.
Sall Mountain Co., Chicago, Ill.
Smith & Kanzler, Elizabeth, N. J.
Union Asbestos & Rubber Co., Chicago, Ill.
Union Rubber & Asbestos Co., Trenton, N. J.
Usaco—United States Asbestos Co., Manheim, Pa.
Watson, H. F., Erie, Pa.

MILLERS, KEY SEATING.

(See "Machines. Keyseating.")

MILLS, END, HOLLOW, ADJUSTABLE HOLLOW AND SHELL.

Brown & Sharpe Mfg. Co., Providence, R. I.
Brubaker—W. L. Brubaker & Bros. Co., New York, N. Y.
Celfor—Clark Equipment Co., Buchanan, Mich.
Chapin-Skelton Corp., Syracuse. N. Y.
Cogsdill Mfg. Co., The, Detroit, Mich.
Cowles Tool Co., Cleveland, O.
Gammons—The Gammons-Holman Co., Manchester, Conn.
Genesee—Genesee Mfg. Co., Inc., Rochester, N. Y.
Illinois—Illinois Tool Works, Chicago, Ill.
Moore & Moore, Inc., Reading, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Porter-Cable Machine Co., Syracuse, N. Y.
Reed-Prentice Corp., Worcester, Mass.
Scott-Spencer Automatic Tool Co., The, Cincinnati, Ohio.
Standard Tool Co., Cleveland, O.
Stanworth Tool Mfg. Co., Inc., Indianapolis, Ind.
Stellite—Union Carbide & Carbon Corp., New York, N. Y.
Thurco—Thurston Mfg. Co., Providence, R. I.
Wear Ever—Scully, Jones & Co., Chicago, Ill.

MIXERS, CONCRETE AND MORTAR.

Acme—Acme Road Machinery Co., Frankfort, N. Y.
American Cement Machine Co., Inc., Keokuk, Ia. (Trade names—Boss, Builders, Packard.)
American—Good Roads Machine Co., Kennett Square, Pa.
Archer Iron Works, Chicago, Ill.
Atlas—Atlas Engineering Co., Milwaukee, Wis.
Badger Concrete Mixer Co., Milwaukee, Wis.
Broughton—Dunning & Boschert Press Co., Syracuse, N. Y.
C. H. & E. Mfg. Co., Milwaukee, Wis.
Chain Belt—Chain Belt Co., Milwaukee, Wis.
Dunn—W. E. Dunn Mfg. Co., Holland, Mich.
Dunning, W. D., Syracuse, N. Y.
Elite Mfg. Co., Ashland, O.
Ideal Concrete Machinery Co., Cincinnati.
Interstate—Interstate Equipment Co., South Bend Ind.
Jaeger—Jaeger Machine Co., Columbus, O.
Kent Machine Co., The, Kent, O.
Keystone—Gray Iron Foundry Co., Reading, Pa.
Koehring—Koehring Company, Milwaukee, Wis.
Lakewood, Lakewood-Milwaukee, Lakewood-M. C.—The Lakewood Engineering Co., Cleveland, O.
Lansing Co., Lansing, Mich.
Leach Company, The, Oshkosh, Wis.
Little Wonder—Waterloo Cement Machinery Corp., Waterloo, Ia.
Loane Engineering Co., Baltimore, Md.
Mey Chain Belt Co., Buffalo, N. Y.
Moak Machine & Supply Co., Port Huron, Mich.
Northwestern—Northwestern Steel & Iron Wks., Eau Claire, Wis.
O. & S.—Orr & Sembower, Inc., Reading, Pa.
Packard—Contractors' Machinery Co., Keokuk, Iowa.
Ransome—Ransome Concrete Mach'y Co., Dunellen, N. J.
Reading—Biehl Iron Works, Inc., The, Reading, Pa.
Sackett, H. B., Screen & Chute Co., Chicago, Ill.
Schramm—Schramm, Inc., Westchester, Pa.
Shirk—Blue Ball Machine Works, Blue Ball, Pa.
Simplicity—The Turner Mfg. Co., Port Washington, Wis.
Smith—T. L. Smith Co., Milwaukee, Wis.
Standard—The Standard Scale & Supply Corp., Pittsburgh, Pa.
Stewart—Stewart Mfg. Co., Waterloo, Iowa.
Union—Union Iron Works, Hoboken, N. J.
United Engine Co., Lansing, Mich. "United," "United Junior."
Weller Mfg. Co., Chicago, Ill.
Wonder—Construction Machinery Co., Waterloo, Ia.

MIXERS, CONCRETE, STREET PAVING.

Badger Concrete Mixer Co., Milwaukee, Wis.
Chain Belt Co., Milwaukee, Wis.
O. & O., Bear, Cub—Orr & Sembower, Inc., Reading, Pa.
Ransome—Ransome Concrete Machinery Co., Dunellen, N. J.
Reliance—Universal Road Machinery Co., Kingston, N. Y.
Schramm—Schramm, Inc., West Chester, Pa.
Smith—T. L. Smith Co., Milwaukee, Wis.

MIXERS, GAS AND AIR.

(See also "Regulators, Gas.")

Air-gas Inspirator—Surface Combustion Co., New York, N. Y.
American Foundry & Mfg. Co., St. Louis, Mo.
Buzzer—Chas. A. Hones, Inc., Baldwin, L. I., N. Y.
Climax—C. M. Kemp Mfg. Co., Baltimore, Md.
Columbus Brass Co., Columbus, O.
Detroit Enterprise, Globe, Kitanning, Stewart, Adjustable Shield, Economy—Detroit Brass & Malleable Works, Detroit, Mich.
Direct Jet—Johnson Gas Appliance Co., Cedar Rapids, Iowa.
Eclipse—Eclipse Fuel Engineering Co., Rockford, Ill.
Eriez—Eriez Stove & Mfg. Co., Erie, Pa.
General Brass Company, Detroit, Mich.
Hays Mfg. Co., Erie. Pa.
Improved Appliance Co., Brooklyn, N. Y.
Johnson—Johnson Gas Appliance Co., Cedar Rapids, Iowa.
Keystone—Wilson-Daum Co., Pittsburgh, Pa.
Matlack, W. H., Louisville, Ky. "Matlack."
McKee—Eclipse Fuel Engineering Co., Rockford, Ill.
Miller—Modern Iron Works, Quincy, Ill.
Nichol, Thos. J., & Co., Cincinnati, O.
Ohio Pump & Brass Co., The, Columbus, O.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Roper, Geo. D., Corporation, Rockford, Ill.
Selas—Selas Co., Philadelphia, Pa.
Zurn, J. A., Mfg. Co., Erie, Pa. (Trade names—Advance, Kittaning.)

MIXERS, SHOWER BATH, THERMOSTATIC.

(See also "Cocks, Stops or Valves, Shower Bath, Self-Closing.")

Lawler Waterfeed & Damper Co., Mt. Vernon, N. Y.
Mott, J. L., Iron Works, Trenton, N. J.
Robertshaw Thermostat Co., Youngwood, Pa.
Powers Regulator Co., Chicago, Ill.

MIXERS, STEAM AND WATER.

Economy Faucet Co., Providence, R. I.
Goetz Brass Co., Chicago, Ill.
Niedecken—Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Lawler Waterfeed & Damper Co., Mt. Vernon, N. Y.
Peck Bros. & Co., New Haven, Conn.
Powers Regulator Co., Chicago, Ill.
Stack Heater Co., Boston, Mass.

MOISTENERS, AIR, HOUSE HEATING.

(See also "Humidifiers")

Illinois Sheet Metal Works, Chicago, Ill.
Marsh—James P. Marsh & Co., Chicago, Ill.
Nugent, Thos., Sons, Inc., New York, N. Y.
Onward Mfg. Co., Menasha, Wis.
Roral—C. C. Shipp & Co., Indianapolis, Ind.

MONEL METAL RODS, SHEETS, STRIPS, WIRE, ETC.

Hungerford, U. T., Brass & Copper Co., New York, N. Y.
Michigan Wire Cloth Co., Detroit, Mich.
Reeves, Paul S., & Co., Philadelphia, Pa.

MORTISERS, PORTABLE, ELECTRIC.

Rogers, F. L., & Co., Chicago, Ill. "Wodack."
Wappat Gear Works, Pittsburgh, Penna.

MOTORS, AIR.

Allis-Chalmers Co., Milwaukee, Wis.
Chicago Pneumatic Tool Co., New York, N. Y. "Little Giant."
Chisholm & Moore Mfg. Co., Cleveland, O.
Dake—Dake Engine Co., Grand Haven, Conn.
Detroit Hoist & Machine Co., Detroit, Mich.
Helwig—Helwig Mfg. Co., St. Paul, Minn.

Imperial—Ingersoll-Rand Co., New York, N. Y.
Independent Pneumatic Tool Co., Chicago, Ill.
Roto Co., The, Hartford, Conn.
Shepard Electric Crane & Hoist Co., Montour Falls, N. Y.
Westinghouse Electric & Mfg. Co., Philadelphia, Pa.

MOTORS AND GENERATORS, ELECTRIC.

A. B.—The National Screw & Mfg. Co., A.-B. Products Div., Cleveland, O. (for washing machines, household and office appliance).
Allis-Chalmers Co., Milwaukee, Wis.
Advance Electric Mfg. Co., St. Louis, Mo.
American Electric Motors, Inc., Milwaukee, Wis.
Azor Motor Mfg. Co., The, Cleveland, O. (small).
Baldor Electric Co., St. Louis, Mo. (horizontal and vertical).
Bell—Bell Electric Motor Co., New York, N. Y.
Bodine—Bodine Electric Co., Chicago, Ill. (small)
Boice, W. B. & J. E., Toledo, O.
Century—Century Electric Co., St. Louis, Mo.
Crocker-Wheeler Electric Mfg. Co., Ampere, N. J.
Cutler-Hammer Co., The, Milwaukee, Wis. "Dean-Control."
Day-Fan Electric Co., Dayton, O. "Day-Fan."
De Laval—De Laval Steam Turbine Co., Trenton, N. J.
Diehl Mfg. Co., Elizabeth, N. J.
Dumore—Wisconsin Electric Co., Racine, Wis.
Eck Dynamo & Motor Co., Belleville, N. J. "High-Grade."
E. M. Synchronous—Electric Machinery Mfg. Co., Minneapolis, Minn.
Emerson—The Emerson Electric Mfg. Co., St. Louis, Mo.
Engberg's Electric & Mechanical Works, St. Joseph, Mich.
Esco—Electric Specialty Mfg. Co., Stamford, Conn.
Fairbanks-Morse—Fairbanks, Morse & Co., Chicago.
Fidelity Electric Co., Lancaster, Pa.
General Electric Co., Schenectady, N. Y.
Gilbert, A. C., Co., The, New Haven, Conn. (small fractional horsepower.)
Hamilton Beach—Hamilton Beach Mfg. Co., Racine, Wis.
Kimble—Kimble Electric Co., Chicago, Ill. (A. C.).
Linc-Weld—The Lincoln Electric Co., Cleveland, O.
Marvel—Electric Blower Co., Boston, Mass. (small)
Master—Master Electric Co., Dayton, O.
Northwestern Mfg. Co., Milwaukee, Wis.
Ohio Electric & Controller Co., Cleveland, O. (fractional sizes.)
O. K.—Marathon Electric Mfg. Co., Chicago, Ill.
Peerless—The Peerless Electric Co., Warren, O
Red Band—Howell Electric Motor Co., Howell, Mich.
Reliance—Reliance Electric & Engineering Co., Cleveland, O.
Robbins & Myers Co., The, Springfield, O.
Rochester Electric Products Corp., Rochester, N. Y.
Rothmotors—Roth Bros. & Co., Chicago.
Sherman—Sherman, H. B., Mfg. Co., Battle Creek, Mich. (fractional horsepower).
Sprague Electric Works of General Electric Co., New York, N. Y.
Stow Mfg. Co., Inc., Binghamton, N. Y.
Sturtevant—B. F. Sturtevant Co., Hyde Park, Mass
Triumph Electric Corp., The, Carthage, O. "Triumph."
U. S.—U. S. Electrical Mfg. Co., Los Angeles, Cal.
Wagner Electric Corp., St. Louis, Mo.
Western Electric Co., Chicago, Ill.
Westinghouse Electric & Mfg. Co., Philadelphia, Pa.
Wiley—Jas. Clark, Jr., Electric Co., Louisville, Ky.
Woods, S. A., Machine Co., The, Boston, Mass.

MOTORS, ELECTRIC, VALVE OPERATING.

(See also "Valves, Electric Motor Operated.")
Liberty Electric Corp'n, Stamford, Conn.

MOTORS, PNEUMATIC.

Detroit Hoist & Machine Co., Detroit, Mich.

MOTORS, WATER.

American Fluid Motor Co., Philadelphia, Penna.
Backus—Backus Water Motor Co., Newark, N. J
Bradway, C. P., Machine Works, The, West Stafford, Conn.
Buckeye—The Buckeye Pump & Mfg. Co., Columbus, Ohio.
Clipper—The Rhodes Mfg. Co., Hartford, Conn.
Gem—Geo. J. Roberts Co., Dayton, O.
Norton—Norton Water Motor Co., Inc., Roslindale, Mass.
Red Devil—Smith & Hemenway Co., Irvington, N. J.
Simplex—Hawkins Pump Works, Downer's Grove, Ill.
Specialty—Indiana Fan Co., Indianapolis, Ind.
Watson-Stillman Co., New York, N. Y.

MOULDS, LEAD HAMMER.

Field, Charles H., Providence, R. I.
Horat, Joseph, Lafayette, Ind.

MOULDS, SOLDER AND LEAD.

Bernz, Otto, Co., Newark, N. J.
Eclipse—Kupferle, John C., Foundry Co., St. Louis, Mo.
Johnson, Wm., Firm of, Newark, N. J.
Jones Hollow Ware Co., Baltimore, Md.
Modern Iron Works, Quincy, Ill. (strap solder).

MOUNTS, VISE.

Toledo—Toledo Pipe Threading Machine Co., Toledo, Ohio.
Vulcan—J. H. Williams & Co., Buffalo, N. Y.

MOVERS OR PUSHERS, CAR.

(See "Car Movers or Pushers").

MUFFLERS, EXHAUST, STEAM.

Koven, L. O., & Bro., Jersey City, N. J.
Linton—Linton Machine Co., New York, N. Y.
McAlear Mfg. Co., The, Chicago, Ill
Penberthy—Penberthy Injector Co., Detroit, Mich.
Utility—Standard Steam Specialty Co., New York.

MUFFLERS, SAFETY VALVE.

Ashton Valve Co., Cambridge, Mass.
Consolidated—The Consolidated Safety Valve Co., New York, N. Y.
Lonergan—J. E. Lonergan Co., Philadelphia, Pa.

NAILS, BRASS AND COPPER.

American Steel & Wire Co., Chicago, Ill.
Atlas Tack Corp., Fairhaven, Mass.
Clendenin Bros., Inc., Baltimore, Md.
Eagle Brand—Taunton-New Bedford Copper Co., Taunton, Mass. (yellow metal).
Grammes, L. F., & Sons, Allentown, Pa.
Hassall, John, Inc., Brooklyn, N. Y.
Hungerford, U. T., Brass & Copper Co., New York, N. Y. "Star."
Hussey, C. G., & Co., Pittsburg, Pa.
Interstate Iron & Steel Co., Chicago, Ill.
Merchant & Evans Co., Philadelphia, Pa.
Turner & Seymour Mfg. Co., Torrington, Conn.

NAILS, COATED.

American Steel Co., Ellwood City, Pa.
Interstate Iron & Steel Co., Chicago, Ill.

NAILS, CUT.

Atlas Tack Co., Fairhaven, Mass.
Igoe Bros., Newark, N. J.
Reading Iron Co., Reading, Pa.
Tower Mfg. Co., Madison, Ind. (small cut).
Tremont Nail Co., Boston, Mass.

NAILS, IRON AND STEEL.

American Steel & Wire Co., Chicago, Ill.
Atlas Tack Co., Fairhaven, Mass. (wire and cut, all metals, small.)
Cambria Steel Co., Johnstown, Pa.
Clendenin Bros., Inc., Baltimore, Md.
Economy Double Headed—The F. A. Neider Co., Augusta, Ky.
Follansbee Bros. Co., Pittsburg, Pa.
Grammes, L. F., & Sons, Allentown, Pa.
Igoe Brothers, Newark, N. J. (wire).
Interstate Iron & Steel Co., Chicago, Ill.
Keystone Steel & Wire Co., Peoria, Ill.
Malleable Iron Fittings Co., Branford, Conn. (galvanized).
Neverust—Wilcox, Crittenden & Co., Middletown, Conn. (galvanized).
Newport Rolling Mill Co., Newport, Ky.
Northwestern Barb Wire Co., Inc., Sterling, Ill.
Pittsburgh Perfect—Pittsburgh Steel Co., Pittsburgh, Pa.
Reading—Reading Iron Co., Reading, Pa.
Townsend Company, New Brighton, Pa.
Wickwire Bros., Inc., Cortland, N. Y.
Wilcox, Crittenden & Co., Inc., Middletown, Conn.
Wheeling Steel Products Co., Wheeling, W. Va.
Youngstown—Youngstown Sheet & Tube Co., Youngstown, O.

NAILS, ROOFING.

American Casting & Mfg. Corp., Brooklyn, N. Y.
Hussey, C. G., & Co., Pittsburgh, Pa.
Lyon, Conklin & Co., Inc., Baltimore, Md.

NAILS, SELF-CLINCHING.

Farrand, Hiram A., Berlin, N. H.

NIPPERS.

Acme—Wiebusch & Hilger, Ltd., New York.
Boker—H. Boker & Co., New York.
Bridgeport Hardware Mfg. Corp., Bridgeport, Conn
Champion-De Arment Tool Co., Meadville, Pa.
Dasco—Damascus Steel Products Co., Rockford, Ill
Heller Bros. Co., Newark, N. J.

PIPE NIPPLES

Made from Standard and Extra Heavy Wrought Iron, Steel and Brass Pipe.

Sharp Threads—Ends Reamed —Long Screws—Tank Nipples

ALSO SWEDGE AND CASING NIPPLES, STEAM GAUGE SYPHONS, BENDS, ETC. GAS MANIFOLDS AND SUPPLY PIPES.

N. G. CRESSMAN COMPANY
INCORPORATED 1912
PHILADELPHIA, PENN.

Irvington Mfg. Co., Irvington, N. J.
Kilborn & Bishop Co., New Haven, Conn.
Mephisto—W. A. Ives Mfg. Co., Wallingford, Conn.
Milwaukee Tool & Forge Co., Milwaukee, Wis.
Red Devil—Smith & Hemenway Co., Irvington, N. J
Schollhorn Co., The Wm., New Haven, Conn.
Smith, H. D., & Co., The, Plantsville, Conn.
Utica—Utica Drop Forge & Tool Co., Utica, N. Y.
V & B—Vaughan & Bushnell Mfg. Co., Chicago, Ill.

NIPPLES, BRASS.

(See also "Nipples, Pipe, Brass.")
Ballantine, Benjamin D., Fitchburg, Mass.

NIPPLES, HOSE.

Acheson Mfg. Co., Rankin, Braddock, P. O., Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
Bard Mfg. Co., Royersford, Pa.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Burlington—Burlington Brass Works, Burlington, Wis.
Callahan Co., The Cornelius, Boston, Mass.
Dallett—Dallet Co., Philadelphia, Pa.
Detroit Brass & Malleable Works, Detroit, Mich.
Elkhart Brass Co., Elkhart, Ind.
Exeter Brass Works, Exeter, N. H.
Fries & Co., Buffalo, N. Y.
General Brass Company, Detroit, Mich.
Hays Mfg. Co., Erie, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Jiffy—The Jiffy Fire Hose Rack Co., New York, N. Y.
Molybdenum—King Pneumatic Tool Co., Chicago, Ill.
Knox—Knox Mfg. Co., Inc., Philadelphia, Pa.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Medina Stamping & Machine Co., Inc., Medina, N. Y.
Mulconroy Company, Inc., Philadelphia, Pa. "Mulconroy."
National Malleable & Steel Castings Co., Cleveland, O.
Pioneer Brass Works, Indianapolis, Ind.
Powell, Wm., Co., The, Cincinnati, O.
Powhatan Brass & Iron Wks., Ranson, W. Va.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Richardson, Edro, Brass Co., Baltimore, Md.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Schlangen Bros. Co., Chicago, Ill.
Seattle Brass Co., Seattle, Wash
Sherman Mfg. Co., H. B., Battle Creek, Mich.
Standard Brass & Iron Works, Milwaukee, Wis.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
Walworth Company, Boston, Mass.

NIPPLES, PIPE, BRASS.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
American Brass & Copper Co., New York, N. Y.
American Foundry & Mfg. Co., St. Louis, Mo.
Ballantine, Benjamin D., Fitchburg, Mass.
Buffalo Nipple & Machine Co., Inc., Buffalo, N. Y.
Burlington Brass Works, Burlington, Wis.
Chicago Nipple Mfg. Co., Chicago, Ill. "Blue Ribbon."
Clow & Sons, James B., Chicago, Ill.
Cressman, N. G., Co., Philadelphia, Pa.
Detroit Brass & Malleable Works, Detroit, Mich.
Edna Brass Mfg. Co., Cincinnati, O.
Exeter Brass Works, Exeter, N. H.
Faries Mfg. Co., Decatur, Ill.
Franklin Brass Fdy., Long Island City, N. Y.
Fretz, S. S. Jr. & Co., Philadelphia, Pa.
Fries & Co., Buffalo, N. Y.
Garratt & Co., W. T., San Francisco, Cal.
General Brass Company, Detroit, Mich.
Gwilliam Mfg. Corp., Philadelphia, Pa.
Hamlin & Emery Brass Co., The, Boston, Mass.
Hunt, H. W., Co., Reading, Mass.
Lansdale Nipple Co., Lansdale, Pa.
Lunkenheimer Co., Cincinnati, O.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
McRae & Roberts Co., The, Detroit, Mich.
Midland Mfg. Co., Fort Worth, Tex. "Midland."
Murdock Mfg. & Supply Co., The, Cincinnati, O.
Pabst, Fred, Co., Milwaukee, Wis.
Perkes, Chas., Co., Philadelphia, Pa.
Pipe, Nipple & Specialty Co., New York, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, O.
Powell Co., The Wm., Cincinnati, O.
Richardson Brass Co., Edro, Baltimore, Md.
Sherman Mfg. Co., H. B., Battle Creek, Mich.
Smith Bros. Nipple Works, Hamburg, Pa.
Standard-Peninsular Brass Works, Detroit, Mich.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
Walworth Company, Boston, Mass.
Waterbury Mfg. Co., Waterbury, Conn.
Western Nipple Mfg. Co., San Francisco, Cal.

NIPPLES, PIPE, EXTRA HEAVY.

Buffalo Nipple & Machine Co., Inc., Buffalo, N. Y.
Cressman, N. G., Co., Philadelphia, Pa.
Kleinman, Russell F., Philadelphia, Pa.
Walworth Company, Boston, Mass.

NIPPLES, PIPE, STEEL & WROUGHT IRON.

Allen, W. D., Manufacturing Co., Chicago, Ill.
Arnold & Arnold Nipple Co., Chicago, Ill.
Baltimore Pipe & Nipple Co., Baltimore, Ind.
Belfield Co., H., **Philadelphia, Pa.**
Buffalo Nipple & Machine Co., Inc., Buffalo, N. Y.
Byers—A. M. Byers Co., Pittsburg, Pa.
Central Steel Products Co., Clinton, Ia.
Chicago Nipple Mfg. Co., Chicago, Ill. "Blue Ribbon."
Cincinnati Nipple & Supply Co., Cincinnati, O.
Clow, James B., & Sons, Chicago, Ill.
Cohoes Rolling Mill Co., Cohoes, N. Y.
Crane Valve Co., Bridgeport, Conn.
Crawford Co., Chicago (for gas fixtures).
Cressman, N. G., Co., Philadelphia, Pa.
D. & L. Nipple Mfg. Co., Chicago, Ill.
Eastern Supply & Mfg. Co., Shoemakersville, Pa
Electro Galvanizing Co., Chicago, Ill.
Fretz, S. S., Jr. & Co., Philadelphia, Pa.
Grinnell Company, Providence, R. I.
Gwilliam Mfg. Corp., Philadelphia, Pa.
Harvey—A. Harvey's Sons Mfg. Co., Detroit, Mich.
Illinois Malleable Iron Co., Chicago, Ill.
Kleinman, Russell F., Philadelphia, Pa.
Liberty Iron Pipe & Nipple Works, New York.
Pabst, Fred, Co., Milwaukee, Wis.
Pipe Nipple & Specialty Co., New York, N. Y.
Pittsburgh Nipple & Mfg. Co., Pittsburgh, Pa.
Pittsburgh Valve Foundry & Construction Co., The, **Pittsburgh, Pa.**
Reading Iron Co., Reading, Pa.
Reidy Machine Screw Co., New Haven, Conn.
Richmond Nipple Corp., Richmond, Va.
Simmons Co., John, New York, N. Y.
Smith Bros. Nipple Works, Hamburg, Pa.
Standard Nipple Co., Hamburg, Pa.
Walworth Company, Boston, Mass.
Ware Coupling & Nipple Co., Ware, Mass.
Waynesboro Nipple Works, Waynesboro, Pa.
Western Nipple Mfg. Co., San Francisco, Cal.
Woodrow Nipple Mfg. Co., Chicago, Ill.

NIPPLES, RADIATOR.

Crane Co., Chicago, Ill.
Flagg, Stanley G., & Co., Philadelphia, Pa.
Malleable Iron Fittings Co., Branford, Conn.
National Malleable & Steel Castings Co., Cleveland, O.
National Radiator Co., Johnstown, Pa.
Pratt Chuck Co. Frankfort, N. Y.
Walworth Company, Boston, Mass.

NIPPLES, SOLDERING.

Acme Brass Works, Detroit, Mich.
American Brass & Copper Co., The, New York, N. Y.
American Foundry & Mfg. Co., St. Louis, Mo.
Atkinson Co., The, Rochester, N. Y.
Atlas Brass Mfg. Co., Bellefontaine, O.
Buckeye Iron & Brass Works, Dayton, O.
Burlington Brass Works, Burlington, Wis.
Clow, James B., & Sons, Chicago, Ill.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Cressman, N. G., Co., Philadelphia, Pa.
Detroit Sanitary Supply Co. Detroit, Mich.
Enterprise Brass Works, Muskegon, Mich.
Erbco—Edro Richardson Brass Co., Baltimore, Md
Exeter Brass Works, Exeter, N. H.
Fries & Co., Buffalo, N. Y.
Gardiner Metal Co., Chicago, Ill.
Gibson & Price Co., Cleveland, O.
Guilderland Foundry Co., Guilderland, N. Y.
Hamlin & Emery Brass Co., The, Boston, Mass.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Healey, Peter, Brass Foundry Co., Evansville, Ind.
Hilton Brass Foundry, Hilton, N. J.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.

Humphryes Mfg. Co., The, Mansfield, O.
Imico—Illinois Malleable Iron Co., Chicago, Ill.
Kinsey & Mahler Co., Peoria, Ill.
Lansdale Nipple Co., Lansdale, Pa.
Loyal Brass Co., Cleveland, O.
McCloskey—John Simmons Co., New York, N. Y.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Midland Mfg. Co., Fort Worth, Tex. "Midland."
Mueller Co., Decatur, Ill.
Peck Bros. & Co., The, New Haven, Conn.
Perkes, Chas., Co., Philadelphia, Pa.
Peru Brass & Mfg. Co., Peru, Ind.
Phoenix Brass Foundry, Irvington, N. J.
Pittsburgh Valve & Fittings Co., Barberton, O.
Pioneer Brass Works, Indianapolis, Ind.
Powhatan Brass & Iron Works, Ranson, W. Va.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Raymond Lead Works, Chicago, Ill.
Reading Brass Works, Reading, Pa.
Richmond Foundry & Mfg. Co., Richmond, Va.
Robertson, James, Lead Co., Baltimore, Md.
Rockford Brass Works, Rockford, Ill.
Romaco—Robertshaw Thermostat Co., Youngwood, Pa.
Rundle Mfg. Co., Milwaukee, Wis.
Seattle Brass Co., Seattle, Wash.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Stebbins, E., Mfg. Co., Springfield, Mass.
Sterling Faucet Co., Newcomerstown, O.
Street & Kent Mfg. Co., Chicago, Ill.
Trenton Emblem Co., Trenton, N. J.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
Union Water Meter Co., Worcester, Mass.
United Brass Mfg. Co., Cleveland, O.
United Lead Co., Boston, Mass.
Walworth Company, Boston, Mass.
Waterbury Mfg. Co., Waterbury, Conn.
Windsor Mfg. Co., Milwaukee, Wis.
Wolff Mfg. Corp., Chicago, Ill.
Woodward-Wanger Co., Philadelphia, Pa.
Youngstown Sheet & Tube Co., The, Youngstown, O.

NIPPLES, SWAGED, OIL WELL.

Cressman, N. G., Co., Philadelphia, Pa.
Harrisburg Pipe & Pipe Bending Co., The, Harrisburg, Pa.
Norris, W. C., Tusla, Okla.

NIPPLES, TANK.

Chicago Nipple Mfg. Co., Chicago, Ill.
Cressman, N. G., Co., Philadelphia, Pa.
Fretz, S. S., Jr., & Co., Philadelphia, Pa.
Lansdale Nipple Co., Lansdale, Pa.
Walworth Company, Boston, Mass.

NIPPLES, TANK, OR LOCKNUT.

Buffalo Nipple & Machine Co., Inc., Buffalo, N. Y.
Chicago Nipple Mfg. Co., Chicago, Ill.
Cressman, N. G., Co., Philadelphia, Pa.
Hays Mfg. Co., Erie, Pa.
Kleinman, Russell F., Philadelphia, Pa.
Walworth Company, Boston, Mass.

NIPPLES, VENT.

Albrass Co., Inc., Coxsackie, N. Y.
Hilton Brass Foundry, Hilton, N. J.

NOZZLES, BOILER.

American Fdy. & Mfg. Co., St. Louis, Mo.
American Spiral Pipe Works, Chicago, Ill. (flanged).
Durbin Malleable Iron Foundries Co., East St. Louis, Ill.

NOZZLES, HOSE.

Allen, W. D., Mfg. Co., Chicago, Ill. (Trade names—Justrite, Magic, Mystic, Waldron.)
American Brass & Copper Co., The, New York, N. Y
American Foundry & Mfg. Co., St. Louis, Mo.
American Safety Lamp & Mine Sup. Co., Scranton, Pa.
Ashworth—Elkhart Brass Mfg. Co., Elkhart, Ind.
Belfield Co., H., Philadelphia, Pa.
Boss—Belknap Mfg. Co., The, Bridgeport, Conn.
Bresnan—Elkhart Brass Mfg. Co., Elkhart, Ind.
Buckeye Iron & Brass Works, Dayton, O.
Buckley Rubber Co., J. W., New York, N. Y.
Callahan, Cornelius, Co., The, Boston, Mass. "Jackson," "Morse."
Chemical—Elkhart Brass Mfg. Co., Elkhart, Ind.
Comet, Daisy—Schlangen Bros. Co., Chicago, Ill.
Comet—H. B. Rusler Mfg. Co., Johnstown, Pa.
Deming Co., The, Salem, O. (Bordeaux, Demorel, Eureka, Simplex.)
Diamond—H. B. Sherman Mfg. Co., Battle Creek, Mich.
Eclipse—Boston Woven Hose & Rubber Co., Cambridge, Mass.
Elk Chemical—Elkhart Brass Mfg. Co., Elkhart, Ind.
Elk Shut-Off—Elkhart Brass Mfg. Co., Elkhart, Ind.
Firemen's Pet—Elkhart Brass Mfg. Co., Elkhart, Ind
Fries & Co., Buffalo, N. Y.
Gem—Home Rubber Co., Trenton, N. J.
Garratt & Co., W. T., San Francisco, Cal.
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
Haydenville Co. The, Haydenville, Mass.
Knox—Knox Manufacturing Co., Philadelphia, Pa.
Landers, Frary & Clark, New Britain, Conn.
Larkin—Larkin Mfg. Co., Dayton, O.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Malleable Iron Fittings Co., Branford, Conn.
Marcus Iron Works, Peoria, Ill.
Medina Stamping & Machine Co., Medina, N. Y.
Mistry—Goulds Pumps, Inc., Seneca Falls, N. Y.
National Water Saver—National Brass Mfg. Co., Rochester, N. Y.
Navy—Elkhart Brass Mfg. Co., Elkhart, Ind.
Nelson, L. R., Mfg. Co., Peoria, Ill. (Trade names—Central, Little Monitor, Peoria, Rainbow, Universal.)
New Boston—Peters Pump Co., Kewanee, Ill.
Peerless—The "S-C" Regulator Co., Fostoria, O.
Perkes Co., Charles, Philadelphia, Pa.
Pet—Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Plain—The Midland Brass Works, Fort Worth, Texas.
Richardson, Edro, Brass Co., Baltimore, Md.
Rumsey's Lily—Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Safety Fire Extinguisher Co., The, New York, N. Y.
Seneca—Goulds Pumps, Inc., Seneca Falls, N. Y.
Sherman—H. B. Sherman Mfg. Co., Battle Creek, Mich.
Standard Brass & Iron Works, Milwaukee, Wis.
Stempel Fire Extinguisher Co., St. Louis, Mo.
Victory—Self Propelling Nozzle Co., New York, N. Y.
Waterous Fire Engine Works, St. Paul, Minn.
Wolff Mfg. Corp., Chicago, Ill.

NOZZLES, HOSE, CONTROLLING.

Binks—Binks Spray Equipment Co., Chicago, Ill.
Elk Controlling—Elkhart Brass Mfg. Co., Elkhart, Ind.
Gaylord Mfg. Co., New York, N. Y.
Invincible, Callahan—Andrew J. Morse & Son, Inc., Boston, Mass.
Richardson, Edro, Brass Co., Baltimore, Md.

NOZZLES, HOSE, & NIPPLES, MALLEABLE.

Dixon Valve & Coupling Co., Philadelphia, Pa.
Knox Mfg. Co., Philadelphia, Pa.

NOZZLES, HOSE, SELF PROPELLING.

Victory—Self Propelling Nozzle Co., New York, N. Y.

NOZZLES, HYDRANT.

American Foundry & Mfg. Co., St. Louis, Mo.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Philadelphia Pipe Bending Co., Philadelphia, Pa.

NOZZLES AND SPRINKLERS, IRRIGATION.

Skinner Irrigation Co., The, Troy, O.
Cornell, W. G., Co., New York City.

NOZZLES, LADLE.

Dixon, Joseph, Crucible Co., Jersey City, N. J.
McCullough-Dalzell Crucible Co., Pittsburgh, Pa.

NOZZLES, PIEZOMETER.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.

NOZZLES, RECORDING.

Koerting—Schutte & Koerting Co., Philadelphia, Pa.

NOZZLES, ROOF.

Universal—Universal Nozzle Co., Indianapolis, Ind.

NOZZLES, SAND BLAST.

Cyclone—W. F. Stodder, Syracuse, N. Y.
Federal Malleable Co., West Allis, Wis.
Hoevel Mfg. Corp., Jersey City, N. J.
Koerting—Schutte & Koerting Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, O.

NOZZLES, SPRAY.

Anthony Co., The, Long Island City, N. Y.
Atmospheric Conditioning Corp., Philadelphia, Pa.
Badger, E. B., & Sons Co., Boston, Mass. "Badger Non-Clog."
Binks Spray Equipment Co., Chicago, Ill.
Carrier—Buffalo Forge Co., Buffalo, N. Y.
Cooling Tower Co., Inc., The, New York, N. Y.
Monarch Mfg. Works, Inc., Philadelphia, Penna.
Power Plant Equipment Co., Kansas City, Mo.
Schutte & Koerting Co., Philadelphia, Pa.
Spray Engineering Co., Boston, Mass.
Yarnall-Waring Co., Philadelphia, Pa.

NUTS, ACORN.

Ferry Cap & Set Screw Co., Cleveland, O.
Western Screw Products Co., St. Louis, Mo.

NUTS, BRASS AND BRONZE.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Ansonia Mfg. Co., Ansonia, Conn.
Atlas—Atlas Bolt & Screw Co., Cleveland, O.
Brey & Krause Mfg. Co., Allentown, Pa.
Bridgeport Brass Co., Bridgeport, Conn.
Chicago Nut Co., Chicago, Ill.
Davis & Hemphill, Elkridge, Md.
Detroit Nut Co., Detroit, Mich.
Economy Screw Corp., Chicago, Ill.
Garrison-Heiland Corp., New York, N. Y.
Harper, H. M., Co., The, Evanston, Ill.
Harris—Arthur Harris & Co., Chicago, Ill.
Hartford Machine Screw Co., Hartford, Conn.
Haskell Mfg. Co., W. H., Pawtucket, R. I.
Little, M. S., Mfg. Co., Hartford, Conn.
Namco—The National Acme Co., Cleveland, O.
National Marine Lamp Co., Forestville, Conn.
New England Screw Co., Boston, Mass.
Pawtucket Mfg. Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill. (machine screw).
Richards, Benjamin, & Co., Winsted, Conn.
Richardson, Edro, Brass Co., Baltimore, Md.
St. Louis Screw Co., St. Louis, Mo.
Sherman-Klove Co., The, Chicago, Ill.
Standard Nut & Bolt Co., Valley Falls, R. I.
Star—U. T. Hungerford Brass & Copper Co., New York, N. Y.
Steward & Romaine Mfg. Co., Philadelphia, Pa.
Waltham Appliance Co., Waltham, Mass.
Waterbury Mfg. Co., Waterbury, Conn.
Western Automatic Machine Screw Co., The, Elyria, O
Western Screw Products Co., St. Louis, Mo.
Wilcox, Crittenden & Co., Inc., Middletown, Conn.
Ziegler Mfg. Co., Alexandria, Ind.

NUTS, CASE HARDENED.

Bethlehem Steel Co., Bethlehem, Pa.
Cad—Standard Shop Equipment Co., Philadelphia, Pa.
Detroit Screw Works, Detroit, Mich.
Empire—Russell, Burdsall & Ward Bolt & Nut Co., Port Chester, N. Y.
Hartford Machine Screw Co., Hartford, Conn. "H. M. S."
Haskell, Wm. H., Mfg. Co., Pawtucket, R. I.
Lamson & Sessions Co., Cleveland, O.
Milton Mfg. Co., The, Milton, Pa.
Pheoll Mfg. Co., Chicago, Ill.
Rochester Machine Screw Co., Rochester, N. Y.
St. Louis Screw Co., St. Louis, Mo.
Upson Nut Co., Cleveland, O.
Western Screw Products Co., St. Louis, Mo.

NUTS, CASTELLATED OR SLOTTED.

Bethlehem Steel Co., Bethlehem, Pa.
Bourne-Fuller Co., The, Unionville, Conn.
Chicago Screw Co., Chicago, Ill.
Cleveland Wrought Products Co., Cleveland, Ohio.
Detroit Nut Co., Detroit, Mich.
Detroit Screw Works, Detroit, Mich.
Empire—Russell, Burdsall & Ward Bolt & Nut Co., Port Chester, N. Y.
Hartford Machine Screw Co., Hartford, Conn. "H. M. S."
Heiz & Heiz, New York, N. Y. "Handy Assortment."
Milton Mfg. Co., Milton, Pa. "Milton."
National Acme Co., The, Cleveland, O. "Namco."
National Machine Products Co., Detroit, Mich.
National Screw & Mfg. Co., Cleveland, O.
New Haven Screw Co., The, New Haven, Conn
Pheoll Mfg. Co., Chicago, Ill.
Reliable Cap & Set Screw Co., Chicago, Ill.
St. Louis Screw Co., St. Louis, Mo.
Western Automatic Machine Screw Co., Elyria, O.
Western Screw Products Co., St. Louis, Mo.
Ziegler Mfg. Co., Alexandria, Ind.

NUTS, CHECK OR JAM.

Bourne-Fuller Co., The, Cleveland, O.
Buffalo Bolt Co., North Tonawanda, N. Y.
Detroit Nut Co., Detroit, Mich.
Detroit Screw Works, Detroit, Mich.
Garland Mfg. Co., Pittsburgh, Pa.
Milton Mfg. Co., The, Milton, Pa.
Pheoll Mfg. Co., Chicago, Ill.
S. A. E.—Western Screw Products Co., St. Louis, Mo
St. Louis Screw Co., St. Louis, Mo.
Ziegler Mfg. Co., Alexandria, Ind.
Zurn, J. A., Mfg. Co., Erie, Pa.

NUTS, COLD PUNCHED.

American Equipment Co., Norristown, Pa.
American Screw Co., Providence, R. I.
Atlas—The Atlas Bolt & Screw Co., Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Bourne-Fuller Co., The, Unionville, Conn.
Buffalo Bolt Co., North Tonawanda, N. Y.
Chicago Nut Co., Chicago, Ill.
Chicago Screw Co., The, Chicago, Ill.
Clark Bros. Bolt Co., Milldale, Conn.
Columbus Bolt Works Co., Columbus, O.
Eastern Bolt & Nut Co., Providence, R. I.
Empire—Russell, Burdsall & Ward Bolt & Nut Co., Port Chester, N. Y.
Fischer & Hayes Rope & Steel Co., Chicago, Ill.
Garland Mfg. Co., Pittsburgh, Pa.
Gary Screw & Bolt Co., Chicago, Ill.
Graham Bolt & Nut Co., Pittsburgh, Pa.
Haskell Mfg. Co., William H., Pawtucket, R. I.
Hoopes & Townsend Co., Philadelphia, Pa.
Kirk-Latty Mfg. Co., Cleveland, O.
Lake Erie Bolt & Nut Co., Cleveland, O.
Lamson & Sessions Co., The, Cleveland, O.
Milton Mfg. Co., Milton, Pa.
National Bolt & Nut Co., Pittsburgh, Pa.
Neely Nut & Bolt Co., Pittsburgh, Pa.
Ohio Nut & Bolt Co., Berea, Ohio.
Oliver Iron & Steel Corp., Pittsburgh, Pa.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.
Republic Iron & Steel Co., Youngstown, O.
Rochester Machine Screw Co., Rochester, N. Y.
St. Louis Screw Co., St. Louis, Mo.
Scranton Bolt & Nut Co., Scranton, Pa.
Standard Nut & Bolt Co., Valley Falls, R. I.
Stephens Nut & Bolt Co., Central Falls, R. I.
Upson—The Bourne-Fuller Co., Cleveland, O.

NUTS, COUPLING, WATER CLOSET.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
Ansonia Mfg. Co., Ansonia, Conn.
Detroit Sanitary Supply Co., Detroit, Mich.
Exeter Brass Works, Exeter, N. H.
Frost Mfg. Co., Kenosha, Wis.
Haydenville Co., Haydenville, Mass.
Peerless Mfg. & Supply Co., New York, N. Y.
Perkes, Chas., Co., Philadelphia, Pa.
Savill's, Thos., Sons, Philadelphia, Pa.
Trenton Brass & Machine Co., Trenton, N. J.
Waterbury Mfg. Co., Waterbury, Conn.

NUTS, FINISHED AND SEMI-FINISHED.

Bethlehem Steel Co., Bethlehem, Pa.
Chicago Nut Co., Chicago, Ill.
Chicago Screw Co., Chicago, Ill.
Cleveland Cap Screw Co., Cleveland, Ohio.
Cleveland Wrought Products Co., Cleveland, Ohio.
Columbus Bolt Co., Columbus, O.
Detroit Nut Co., Detroit, Mich.
Detroit Screw Works, Detroit, Mich.
Economy Screw Corp., Chicago, Ill. (iron and brass).
Empire—Russell Burdsall & Ward Bolt & Nut Co., Port Chester, N. Y.
Garland Mfg. Co., Pittsburgh, Pa.
Gary Screw & Bolt Co., Chicago, Ill.
Graham Bolt & Nut Co., Pittsburgh, Pa.
Hartford Machine Screw Co., Hartford, Conn. "H. M. S."
Heiz & Heiz, New York, N. Y. "Handy Assortment."
Haskell Mfg. Co., William H., Pawtucket, R. I.
Lake Erie Bolt & Nut Co., Cleveland, O.
Milton Mfg. Co., Milton, Pa.
Namco—National Acme Co., Cleveland, O.
National Machine Products Co., Detroit, Mich.
National Screw & Mfg. Co., Cleveland, O.
Neely Nut & Bolt Co., Pittsburgh, Pa.
New Haven Screw Co., The, New Haven, Conn.
Perfection—Foster Bolt & Nut Mfg. Co., Cleveland, O.
Pheoll Mfg. Co., Chicago, Ill.
Reliable Cap & Set Screw Co., Chicago, Ill.
Rochester Machine Screw Co., Rochester, N. Y.
Sherman-Klove Co., The, Chicago, Ill. (Semi-finished hexagon, steel, brass and bronze.)
Standard Pressed Steel Co., Jenkintown, Pa.
Steward & Romaine Mfg. Co., Philadelphia, Pa.
St. Louis Screw Co., St. Louis, Mo.
Upson—The Bourne-Fuller Co., Cleveland, O.
Western Automatic Machine Screw Co., Elyria, O.
Western Screw Products Co., St. Louis, Mo.
Ziegler Mfg. Co., Alexandria, Ind.

NUTS, HOT PRESSED.

American Bolt Co., Birmingham, Ala.
American Equipment Co., Norristown, Pa.
Ames, W., & Co., Jersey City, N. J.
Bethlehem Steel Co., Bethlehem, Pa.
Boss Bolt & Nut Co., Chicago, Ill.
Bourne-Fuller Co., The, Unionville, Conn.
Buffalo Bolt Co., North Tonawanda, N. Y.
Columbus Bolt Works Co., Columbus, O.
Fischer & Hayes Rope & Steel Co., Chicago, Ill
Gary Screw & Bolt Co., Chicago, Ill.
Graham Bolt & Nut Co., Pittsburgh, Pa.
Hoopes & Townsend Co., Philadelphia, Pa.
Kansas City Bolt & Nut Co., Kansas City, Mo.
Lake Erie Bolt & Nut Co., Cleveland, O.
Lamson & Sessions Co., Cleveland, O.
Lanman, E. B., Co., East Chicago, Ind.
Lanz, M., Bolt Co., Pittsburgh, Pa.
Lebanon Iron Co., Philadelphia, Pa.
Milton Mfg. Co., Milton, Pa.

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Made of the finest grade of Malleable Iron

8 Patterns

33 Sizes

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Neely Nut & Bolt Co., Pittsburgh, Pa.
Ohio Nut & Bolt Co., Berea, Ohio.
Oliver Iron & Steel Corp., Pittsburgh, Pa.
Pawtucket Mfg. Co., Pawtucket, R. I.
Scranton Bolt & Nut Co., Scranton, Pa.
Upson Nut Co., The, Cleveland, O. (square and hex.)

NUTS, LEATHER.

Best Leather Nut Co., Stoneham, Mass.

NUTS, LOCK.

(See also "Locknuts.")

Boss Bolt & Nut Co., Chicago, Ill.
Grip Lock Nuts—Grip Nut Co., Chicago, Ill.
Mansfield Lock Washer Co., Mansfield, O.
Realock—Flannery Bolt Co., Pittsburgh, Pa.

NUTS, ROUND TOP.

Excelsior Leather Washer Mfg. Co., Rockford, Ill.

NUTS, SLIP JOINT.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American Brass Novelty Co., Grand Haven, Mich.
American Foundry & Mfg. Co., St. Louis, Mo.
American Sanitary Mfg. Co., Abingdon, Ill.
Ampinco—American Pin Co., Waterbury, Conn.
Beaton & Cadwell Mfg. Co., New Britain, Conn.
Bethlehem Steel Co., Bethlehem, Pa.
Bridgeport Brass Co., Bridgeport, Conn.
Dearborn Brass Co., Cedar Rapids, Iowa.
Detroit Sanitary Supply Co., Detroit, Mich.
Empire Brass Mfg. Co., Cleveland, O.
Exeter Brass Works, Exeter, N. H.
Frost Mfg. Co., The, Kenosha, Wis.
Goetz Brass Co., Chicago, Ill.
Hays Mfg. Co., Erie, Pa.
Little, M. S., Mfg. Co., Hartford, Conn.
Loyal Brass Co., Cleveland, O.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Mt. Carmel Mfg. Co., Mt. Carmel, Conn.
Peck Bros. & Co., New Haven, Conn.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Richardson, Edro, Brass Co., Baltimore, Md.
Rockford Brass Works, Rockford, Ill.
Seattle Brass Co., Seattle, Wash.
Speakman Co., Wilmington, Del.
Street & Kent Mfg. Co., Chicago, Ill.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
Wise, J. B., Inc., Watertown, N. Y.
Woodward-Wanger Co., Philadelphia, Pa.

NUTS AND SCREWS, THUMB AND WING.

Besly, Chas. H., & Co., Chicago, Ill.
Bethlehem Steel Co., Bethlehem, Pa.
Billings & Spencer Co., Hartford, Conn.
Boss Bolt & Nut Co., Chicago, Ill.
Brey & Krause Mfg. Co., Allentown, Pa.
Buffalo Bolt Co., North Tonawanda, N. Y.
Champion—Champion Locknut Corp., New York, N. Y.
Chapin-Stephens Co., The, Pine Meadow, Conn.
Chicago Nut Co., Chicago, Ill.
Chicago Screw Co., Chicago, Ill.
Cleveland Wrought Products Co., Cleveland, O.
Consolidated Mfg. Co., Dayton, O.
Detroit Screw Works, Detroit, Mich.
Devlin, Thos., Mfg. Co., Philadelphia, Pa.
Eberhard Mfg. Co., The, Cleveland, O.
Garland Mfg. Co., Pittsburgh, Pa.
General Brass Company, Detroit, Mich.
Haskell Mfg. Co., William H., Pawtucket, R. I.
Lamson & Sessions Co., The, Cleveland, O.
National Screw & Mfg. Co., Cleveland, O.
Oliver Iron & Steel Corp., Pittsburgh, Pa.
Pheoll Mfg. Co., Chicago, Ill.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Rochester Machine Screw Co., Rochester, N. Y.
St. Louis Screw Co., St. Louis, Mo.
Steward & Romaine Mfg. Co., Philadelphia, Pa.
Vandergrift & Morris, Shelbyville, Ind.
Victor—Victor Products Corp., Chicago, Ill.
Western Automatic Machine Screw Co., The, Elyria, O.
Williams & Co., J. H., Buffalo, N. Y.

NUTS, WASTE.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Ampinco—American Pin Co., Waterbury, Conn.
Crane Co., Chicago, Ill.
Dependable—Detroit Brass & Malleable Works, Detroit, Mich.
Erbco—Edro Richardson Brass Co., Baltimore, Md.
Imico—Illinois Malleable Iron Co., Chicago, Ill.
Walworth Company, Boston, Mass.

OAKUM.

American Mfg. Co., The, Brooklyn, N. Y. "Eagle."
Berkeley Mfg. & Supply Co., Jersey City, N. J. "Berkeley."
Bishop, Robert, Mfg. Co., Boston, Mass.
Central Rope Mfg. Co., Brooklyn, N. Y.
Clover Brand—Frank W. Winne & Son, Philadelphia, Pa.
Davey Co., The, Jersey City, N. J.
Fischer & Hayes Rope & Steel Co., Chicago, Ill.
G. S. O. Co.—Geo. Stratford Oakum Co., Jersey City, N. J.
Hoffman-Corr Mfg. Co., Philadelphia, Pa.
H. & A., Clermont, Mayflower—Hooven & Allison Co., Xenia, Ohio.
Nycord—The New York Cordage Co., New York, N. Y.
Quaker—The Quaker City Cordage Co., Philadelphia, Pa.
Stratford—Stratford Oakum Co., Geo., Jersey City, N. J.
Woolford, N. B., Oakum Co., Baltimore, Md.

OFFSETS, BRASS.

Essex Foundry, Newark, N. J.
Frost Mfg. Co., The, Kenosha, Wis.

OFFSETS, SOIL PIPE.

Gulf States Pipe Corp., Anniston, Ala.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia Pa.
Walworth Company, Boston, Mass.

OIL RECLAIMING SYSTEMS, CUTTING OIL.

Bowser, S. F., & Co., Fort Wayne, Ind.
Wayne Tank & Pump Co., Ft. Wayne, Ind.

OIL, CORE.

(See "Compounds and Oils, Core.")

OIL, LINSEED.

Cincinnati Oil Works Co., Cincinnati, O.
Dutch Boy—National Lead Co., New York, N. Y.
Sero—Sero Specialty Co., Cleveland, Ohio.
World Refining Co., Easton, Pa.

OIL, LUBRICATING.

(See also "Lubricants.")

Acme—Acme Petroleum Products Co., Cleveland, O.
Albany—Adam Cook's Sons, New York, N. Y.
American—American Oil Corp., Jackson, Mich.
Apcoline—Acme Refining Co., The, Cleveland, O.
Autoline—Wm. C. Robinson & Son Co., Baltimore, Md.
Baum's Castorine Co., Rome, N. Y.
Bayerson—Bayerson Oil Works, Erie, Pa.
Besly Solid—Charles H. Besly & Co., Chicago, Ill.
Buck's Best Auto—E. A. Buck & Co., Willimantic, Conn.
Chard & Howe, New York, N. Y.
Chelsea—Chelsea Oil & Supply Co., New York, N. Y.
Cincinnati Oil Works Co., The, Cincinnati.
Climax—Daniel Mahoney & Sons, Commercial Oil Co., Buffalo, N. Y.
Clipper, 650 Z, Sultana—The Moore Oil Refining Co., Cincinnati, Ohio.
Consmolubric—E. F. Houghton & Co., Philadelphia, Pa.
Crane, James W., Co., Inc., Brooklyn, N. Y. "Crane."
Damascus Mfg. Corp., Cleveland, O.
Duplex Enterprise Oil Co., Buffalo, N. Y.
Duryea Mfg. Co., Bayonne, N. J.
Economy Lubricating Co., Boston, Mass. "Atkinson's."
Economy Oil Co., Chicago, Ill.
Economy Oilgum—White & Bagley Co., Worcester, Mass.
En-Ar-Co—The National Refining Co., Cleveland, O.

Ensign Refining Co., The, Cleveland, O.
Franklin—Franklin Oil & Gas Co., Bedford, O.
Galena—Galena Signal Oil Co., Franklin, Pa.
Genasco—Barber Asphalt Co., Philadelphia, Pa.
Gold Crown—Oklahoma Producing & Refining Corp. of Amer., Muskogee, Okla.
Great Western Oil Co., The, Cleveland, O.
Gulf Refining Co., Pittsburgh, Pa.
Harris, A. W., Oil Co., Providence, R. I. "Harris."
Havoline—Indian Refining Co., Inc., New York, N. Y.
Hilo—The Ohio Grease Co., Loudonville, O.
Home—Buffalo Specialty Co., Buffalo, N. Y.
Houghton's Motor Oil—E. F. Houghton & Co., Philadelphia, Pa.
Imp—Burton H. Rath, Philadelphia, Pa.
Improved H. V. Turbine Oil—Inter-Ocean Oil Co., Chicago, Ill.
International Metal Polish Co., Indianapolis, Ind. "Blue Ribbon."
Kramer, W. J., Oil Co., Milwaukee, Wis. "I. X. L."
Keystone Oil & Mfg. Co., Chicago, Ill.
Marile, Panhard—Panhard Oil Corp., New York, N. Y.
Miller, Wm. P., Co., Brooklyn, N. Y. (Trade names—American, Commodore, Shield, Victory.)
Mobiloil—Vacuum Oil Co., Rochester, N. Y.
Monarch, Mona Mobile—Monarch Mfg. Co., Council Bluffs, Ia.
Moore Oil Refining Co., Cincinnati, O.
Muskogee—Oklahoma Producing & Refining Corp. of America, Tulsa, Okla.
New York Lubricating Oil Co., New York, N. Y. (Trade names—Marengine, Monogram, Nylo.)
New York & New Jersey Lubricating Co., New York, N. Y. (Trade names—Mo-To-Rol, Non-Fluid.)
Nun-better—S. W. Davis Oil Co., Providence, R. I.
Oildag—Acheson Oildag Co., Port Huron, Mich.
P. L. C.—Patterson Lubricating Co., Boston, Mass.
Primus—Penn Petroleum & Supply Co., Philadelphia.
Quaker State—Phinney Bros. Co., Oil City, Pa.
Red Seal—Cherry Chemical Co., Philadelphia, Pa.
Richards, G. Whitfield, Philadelphia, Pa. "Lube-Well," "Lubro-Kool," "None-Such."
Robsoco—Wm. C. Robinson & Son Co., Baltimore, Md.
Rock Brand—Magie Bros., Chicago, Ill.
Schaeffer Bros. & Powell Mfg. Co., St. Louis, Mo. Star, Jupiter, Saturn, Royal, Mars, Venus, Golden, Quaker State.
Signet Oil—Russia Cement Co., Gloucester, Mass.
Sonneborn Sons, Inc., L., New York, N. Y.
Standard Oil Co., New York, N. Y. "Polarine," "Superla."
Star Oil Co., The, Chicago, Ill. Trade names—Comet Star, Jupiter, Saturn, Royal, Mars, Venus, Glycerol, Quaker State, Red.
Swan-Finch Oil Corp., New York. (Trade names—Crown, Bayway, Excelsior, Atlas, Cascade, Slo-Flo, Motul (for auto), Textul (for textile machinery.)
Swastika—McLean-Jones Oil & Supply Co., Inc., Boston, Mass
Stuart, D. A., & Co., Chicago, Ill. (Trade names—Das-Co., Electric, No. 2 S, Red, Ruby, Zero, Yucatan.)
Texas Co., The, New York, N. Y. "Texaco."
Tide Water Oil Co., New York, N. Y. (Trade names—Dynol, Suprol, Turbol, Vedol.)
Tractorline—Wm. C. Robinson & Son Co., Baltimore, Md.
Triprocess—The Geo. H. Garnet Co., Allentown, Pa.
Union Oil Works, Erie, Pa.
Vacuum Oil Co., New York, N. Y. "Gargoyle," "Gargoyle Mobiloils."
Valvoline—Valvoline Oil Co., New York, N. Y.
Warley's—Thos. C. Warley & Co., Philadelphia, Pa.
Waverly—Waverly Oil Works Co., Pittsburgh, Pa.
Whiz—Hollingshead Co., R. M., Camden, N. J.
World Fordrite, World Motorrite—The World Refining Co., Easton, Pa.
Zero—D. A. Stuart & Co., Chicago, Ill.
Zero—Daniel Mahoney & Sons, Commercial Oil Co., Buffalo, N. Y.
Zero Oil Co., Parkersburg, W. Va. (Natural furniture, rubbing, ice machine and press). "Zero."

OIL, PENETRATING, GRAPHITE.

Dixon, Joseph, Crucible Co., Jersey City, N. J.
Superior Flake Graphite Co., Chicago, Ill. "Superflake."

OIL, SCREW CUTTING.

(See also "Compounds, Cutting, Drilling," etc.)

Acme Mystic—Swan-Finch Oil Corp., New York, N. Y.
American—American Oil Corp., Jackson, Mich.
Bestoil—The Oster Mfg. Co., Cleveland, O.
Blue Seal—Blue Seal Chemical Co., Roselle, N. J.
Buck, E. A. Co., Inc., Willimantic, Conn.
Damascus Mfg. Corp., Cleveland, O.
Dasco—D. A. Stuart & Co., Chicago, Ill.
Emulso—Baverson Oil Works, Erie, Pa.
Ex-el-ard—Buffalo Specialty Co., Buffalo, N. Y.
Frontier—Frontier Mfg. Co., North Tonawanda, N. Y.

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For lubricating cylinders of gas, gasoline and oil engines, etc. Simple, perfect design and thoroughly dependable. Sight feed and durable check valves. Write for catalog.

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Minolard—White & Bagley Co., Worcester, Mass.
Near-A-Lard, Frigidol—G. Whitfield Richards, Philadelphia, Pa.
Oak, Top—Lynch-Clarisey Co., Chicago, Ill.
Panhard—Panhard Oil Corp., New York, N. Y.
Primus Soluble, Primus Petro Lard—Penn Petroleum & Supply Co., Philadelphia, Pa.
Standard—Standard Chemical Corp., Kalamazoo, Mich.
Sun Oil Company, Philadelphia, Pa.
Waverly—Waverly Oil Works Co., Pittsburg, Pa.
World Refining Co., The, Easton, Pa.

OILER SETS

American Tube & Stamping Co., Bridgeport, Conn.
Deverall's—Deverall Perfection Mfg. Co., Brooklyn
Eagle Mfg. Co., Wellsburg, W. Va.
G. L., Lidseen—Gustave Lidseen, Chicago, Ill.
Gem Mfg. Co., Pittsburgh, Pa. "Gem."
Hall's—Hall Mfg. Co., Harrison, N. J.
Knapp Mfg. & Supply Co., The, New York, N. Y.
Manhattan Brass Co., New York, N. Y.
National Marine Lamp Co., New York, N. Y.
Noera Mfg. Co., The, Waterbury, Conn.
Perfection—Handlan Buck Mfg. Co., St. Louis, Mo.
Star—U. T. Hungerford Brass & Copper Co., New York, N. Y.
Wall Mfg. & Supply Co., The P., Pittsburgh, Pa.

OILERS, CROSS HEAD.

American—American Lubricator Co., Detroit, Mich.
Anti-Packed Telescopic—Wm. W. Nugent & Co., Chicago, Ill.
Chicago—The Ohio Injector Co., Wadsworth, O.
Essex Brass Corp., Detroit, Mich.
Hall—Hall Mfg. Co., Harrison, N. J.
Lunkenheimer Co., The, Cincinnati, O.
Nathan Mfg. Co., New York, N. Y.
Nugent—Wm. W. Nugent & Co., Chicago, Ill.
Penguin, Phoenix, Petrel—The Wm. Powell Co., Cincinnati, O.

OILERS, CYLINDER.

Chicago-Wilcox Mfg. Co., Chicago, Ill.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., Cincinnati, O.
Essex Brass Corp., Detroit, Mich.
Locke—Locke Regulator Co., Salem, Mass.
Manzel Brothers Co., Buffalo, N. Y.
Michigan Lubricator Co., Detroit, Mich. (Trade names—Brownie, Cyclone, Duke, Giant, Meteor, Rural, Sprite.)
Picket—The Wm. Powell Co., Cincinnati, O.
Pilgrim—The Wm. Powell Co., Cincinnati, O.
Sherwood Mfg. Co., Buffalo, N. Y. Trade names—Hart Force Sight Feed, Felthousen Hand Pump, Buffalo Glass Body Pump.
Walworth Company, Boston, Mass.

OILERS, ENGINEERS' AND MACHINISTS'

(See also "Oiler Sets")

All-Way—Famasco Distributing Co., Buffalo, N. Y. (flexible spout).
Beacon—Mooers-Wright Co., New York (flexible spout).
Cannon Oiler Co., The, Keithsburg, Ill. "Cannon."
Deverall's—Deverall Perfection Mfg. Co., Brooklyn
Dover-Flexo—Dover Stamping & Mfg. Co., Cambridge, Mass.
Gem—Gem Mfg. Co., Pittsburgh, Pa.
Geuder, Paeschke & Frey Co., Milwaukee, Wis.

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Brazed Steel
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Cannot be broken or melted

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Johnson Mfg. Co., The, Urbana, O.
Knapp Mfg. & Supply Co., New York, N. Y.
Kolaps—Hunt-Lasher Co., Inc., Boston, Mass.
Lunkenheimer Co., The, Cincinnati, O.
Malleable Iron Fittings Co., Branford, Conn.
Manhattan Brass Co., New York, N. Y.
Maple City Stamping Co., Peoria, Ill.
Noera Mfg. Co., The, Waterbury, Conn.
O-No-Drip—Arthur S. Harding Co., West Somerville, Mass.
Perfection—Handlan Buck Mfg. Co., St. Louis, Mo.
Richard—The Ansonia Novelty Co., Ansonia, Conn.
Thompson—Carr Can Co., Raynham, Mass. (steel tube).
Union Hardware Co., Torrington, Conn.
Vogel, Wm., & Bros., Brooklyn, N. Y.
Wall Mfg. Supply Co., The P., Pittsburgh, Pa.
Walters—Walters Mfg. Co., Pittsburgh, Pa.
Walworth Company, Boston, Mass.
Whitaker Mfg. Co., The, Chicago, Ill.

OILERS, FLANGE.

Detroit Lubricator Co., Detroit, Mich.
Ohio Injector Co., The, Wadsworth, O.

OILERS, MULTIPLE.

American—American Lubricator Co., Detroit, Mich.
Bartow—Hall Mfg. Co., Harrison, N. J.
Commonwealth Brass Corp., Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Lonergan, J. E., Co., Philadelphia, Pa. "Lonergan."
Lunkenheimer Co., The, Cincinnati, O.
Manzel Brothers Co., Buffalo, N. Y.
Michigan—Michigan Lubricator Co., Detroit, Mich.
Nathan Mfg. Co., New York, N. Y.
Powell Co., The Wm., Cincinnati, O.
R. P.—Richardson Phenix Co., Milwaukee, Wis.
Sherwood Mfg. Co., Buffalo, N. Y.

OILERS, PLURAL FEED.

Michigan—Michigan Lubricator Co., Detroit, Mich.

OILERS, PUMP TYPE

Sure Squirt—Beck Mfg. Co., Sioux City, Ia.
Cannon—The Cannon Oiler Co., Keithsburg, Ill.
Eagle Mfg. Co., Wellsburg, W. Va.
Forzoil—Anthes Force Oiler Co., Ft. Madison, Ia.
Lidseen—Gustave Lidseen, Inc., Chicago, Ill.
Michigan (hand operated)—Michigan Lubricator Co., Detroit, Mich.
Noera Mfg. Co., Waterbury, Conn.
Nugent, Wm., & Co., Chicago, Ill.
Perfection—Handlan-Buck Mfg. Co., St. Louis, Mo.
Piston Valve Oiler Co., Cedar Falls, Ia.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa. "Famous," "Superior."

OILERS, SIGHT FEED.

American Lubricator Co., Detroit, Mich. "Admiral," "American," "Detroit," "Field," "White."
American Injector Co., Detroit, Mich.
Couse—Eastwood Wire Mfg. Co., Belleville, N. J.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Essex Brass Corp., Detroit, Mich.
Guillott Metal Gasket & Supply Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, O.
Manzel—Manzel Bros. Co., Buffalo, N. Y.

The **LIDSEEN** *POSITIVE*
FORCE FEED OILERS
AND
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ALL WELDED PUSH BOTTOM OILERS

Save 50% of Oil and Time. The Force Feed Action positively controls the flow of oil.

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Made of heavy steel. All Welded.

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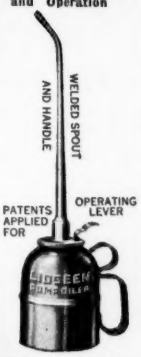
Machinists' Oiler. Gun Metal or Copper Plated on Heavy Steel. 1/3 pt., ½ pt., ¾ pt. 4 in., 5½ in., 9½ in. Spouts.



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Michigan Lubricator Co., Detroit, Mich. (Trade names—Brownie, Guardsman, Meteor, Michigan, Sprite.)
Nathan Mfg. Co., New York, N. Y.
Nugent—Wm. W. Nugent & Co., Chicago, Ill.
Ohio Injector Co., The, Wadsworth, O.
Phillip's—Rich Mfg. Co., Boston, Mass.
Picket—The Wm. Powell Co., Cincinnati, O.
Puritan—The Wm. Powell Co., Cincinnati, O.
Richardson-Phenix Co., The, Milwaukee, Wis. "Richardson."
Sherwood—Sherwood Mfg. Co., Cincinnati, O.
Signal—The Wm. Powell Co., Cincinnati, O.

OILERS, TELESCOPIC.

Nugent, Wm., & Co., Chicago, Ill.
R. P.—Richardson Phenix Co., Milwaukee, Wis.
Rich Mfg. Co., Boston, Mass.

OILSTONES.

American—American Emery Wheel Co., Providence, R. I.
Carborundum Company, The, Niagara Falls, N. Y.
Cranford Oilstone Works, Cranford, N. J.
Eagle—Eagle Emery & Corundum Wheel Co., Chicago, Ill.
Chicago Wheel & Mfg. Co., Chicago, Ill. "Gem," "Keen Edge," "Made of Carborundum."
Goodrich Grinding Wheel Co., Chicago, Ill. (Trade names, "Carbo," "Magneto," "Rajah.")
India, Arkansas, Washita—Pike Mfg. Co., Pike, N. H.
Scranton Whetstone & Abrasive Co., The, Scranton, Pa. Trade names—Forget-Me-Not, Green Turtle, Ideal, Quick-Cut, Red Cloud, Hard Arkansas, Hindostan, Sandstone, Washita.
Vitrified Wheel Co., Westfield, Mass.

OPENERS, BOX.

Buffum Tool Co., Louisiana, Mo.
Duffy Manufacturing Co., Chicago, Ill.
H. J. H., Buckeye—The Colonial Tool & Forge Co., Columbiana, Ohio.
K. & B., Mellor—Kilborn & Bishop Co., New Haven, Conn.
Iroquois, 20th Century, Matchless Box Terrier, Seminole, Tomahawk, Baby Terrier, Hooker, Nox Tox—Bridgeport Hardware Mfg. Corp., Bridgeport, Conn.

Morrill, Apex—Chas. Morrill, Inc., New York, N. Y.
Sayre, L. A., Co., Newark, N. J.
V & B—Vaughan & Bushnell Mfg. Co., Chicago, Ill.

ORANGE MINERAL.

Eagle-Picher Lead Co., Cincinnati, Ohio.

OVENS, CORE, ENAMELING AND JAPANNING.

Acme, Arundel—Monarch Engineering & Mfg. Co., The, Baltimore, Md. (oil, gas, coal, coke).
Bellevue—Bellevue Industrial Furnace Co., Detroit, Mich.
Billow—National Supply Co., Chicago, Ill.
Blodgett—The G. S. Blodgett Co., Inc., Burlington, Vt.
Buckeye Products Co., Cincinnati, O.
Coleman—Foundry Equipment Co., Cleveland, O.
Cullen-Atkinson Co., The, Hartford, Conn.
Freas—The Thermo Electric Instrument Co., Newark, N. J.
Hill & Griffith Co., Cincinnati, O.
Hynes & Cox Electric Corp., Albany, N. Y.
Improved Appliance Co., Brooklyn, N. Y.
Koven, L. O., & Bro., Jersey City, N. J.
Littleford Bros., Cincinnati, O.
Meek Oven Co., Newburyport, Mass.
Northern Engineering Works, Detroit, Mich.
Obermayer Co., S., Cincinnati, O.
Quigley Furnace Specialties Co., New York.
Roberts Portable Oven Co., Chicago, Ill.
Ryan, F. J., & Co., Philadelphia, Pa.
Swartwout—The Swartwout Co., Cleveland, Ohio.
Sly, W. W., Mfg. Co., Cleveland, O.
Wadsworth Core Machine & Equipment Co., Akron, O. "Wadsworth."
Welded Steel Barrel Corp., Detroit, Mich.
Young Bros. Co., Detroit, Mich.

OVENS, ELECTRIC, FOR INDUSTRIAL USES.

General Electric Co., Schenectady, N. Y.
Hughes Electric Heating Co., Chicago.
Heco—H. B. Eaton & Co., Inc., Boston, Mass.
Thermo Electric Instrument Co., Newark, N. J. (Trade names—Freas, Thelco.)
Trent, Harold E., Company, Philadelphia, Pa.
Young Bros. Co., Detroit, Mich.

OVERFLOWS, BASIN AND BATH, PATENT.

(See also "Supplies and Wastes.")

American Pin Co., The, Waterbury, Conn.
Bishop & Babcock Co., Cleveland, O.
Bridgeport Brass Co., The, Bridgeport, Conn.
Cleveland Faucet Co., The, Cleveland, O.
Exeter Brass Works, Exeter, N. H.
Femco—Frost Mfg. Co., Kenosha, Wis.
Haydenville Co., The, Haydenville, Mass.
Humphryes Mfg. Co., The Mansfield, O.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Rex—Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Trenton Brass & Machine Co., The, Trenton, N. J.
Wise, J. B., Inc., Watertown, N. Y.

OXYGEN, FOR INDUSTRIAL USES.

International Oxygen Co., Newark, N. J.
Linde Air Products Co., New York, N. Y.
Mine Safety Appliance Co., Pittsburgh, Pa.
Union Carbide & Carbon Corp., New York, N. Y.
Universal Oxygen Co., Sheboygan, Wis.

PACKERS, SYPHON.

Canfield Rubber Co., The, Bridgeport, Conn.
Canfield, H. O., Co., The, Bridgeport, Conn.

PACKERS, WELL.

Chicago Well Supply Co., Chicago, Ill.
Diamond Rubber Co., Inc., The, Akron, O.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Franklin Valveless Engine Co., Franklin, Pa.
Larkin Bros., St. Louis, Mo.
Larkin & Co., Butler, Pa.
Masseth Packer & Machine Co., Butler, Pa.
Oil Well Supply Co., Pittsburgh, Pa.
Parkersburg Machine Co., Parkersburg, W. Va.
Republic Rubber Co., The, Youngstown, O.
Robinson Packer Co., Tulsa, Okla.
Spang & Co., Butler, Pa.
Union Rubber & Asbestos Co., Trenton, N. J.
United & Globe Rubber, Inc., Trenton, N. J.

PACKING, AIR BRAKE.

Chicago Rawhide Mfg. Co., The, Chicago, Ill.
Donovan Packing & Rubber Co., Inc., Philadelphia, Pa.
Fieldco—R. B. Field & Co., Worcester, Mass.
Goetze Gasket & Packing Co., New Brunswick, N. J.
John Crane—Crane Packing Co., Chicago, Ill.
Keasbey & Mattison Co., Ambler, Pa.
Marco—The Mechanical Rubber Co., Cleveland, Ohio.
Standard—Standard Packings Co., Cleveland, O.
United States Rubber Co., New York, N. Y.
Vim—E. F. Houghton & Co., Philadelphia, Pa.
Western Packing & Supply Co., Chicago, Ill.

PACKING, AIR PUMP AND COMPRESSOR.

Algco—Auburn Leather Goods Co., Hartford, Conn.
American—American Metallic Packing Co., Pittsburgh, Pa.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Chicago Rawhide Mfg. Co., The, Chicago, Ill.
Clinton Mfg. Co., Brooklyn, N. Y.
Donovan Packing & Rubber Co., Inc., Philadelphia, Pa.
Eureka Packing Co., New York, N. Y.
France Packing Co., Inc., Philadelphia, Pa.
General Asbestos & Rubber Co., Charleston, S. C. "Semibronze."
Goetze Gasket & Packing Co., New Brunswick, N. J.
Goodyear—The Goodyear Tire & Rubber Co., Akron, O.
John Crane—Crane Packing Co., Chicago, Ill.
Mabbs Hydraulic Packing Co., Chicago, Ill.
Marco—The Mechanical Rubber Co., Cleveland, Ohio.
Martell Packing Co., Elyria, Ohio.
Metric Packing Co., Div. of the Hewitt Rubber Co., Buffalo, N. Y.
Michigan Leather Packing Co., Detroit, Mich. "M. L. P."
Quaker City Rubber Co., Philadelphia, Pa.
Standard—Northern Metallic Packing Co., St. Paul, Minn.
Standard—Standard Packings Co., Cleveland, O.
Union Asbestos & Rubber Co., Chicago, Ill.
Union Rubber & Asbestos Co., Trenton, N. J.
Vulcabeston—Johns-Pratt Co., Hartford, Conn.
Western Packing & Supply Co., Chicago, Ill.

PACKING, AMMONIA.

American Metallic Packing Co., Pittsburgh, Pa. "American."
Barwood, L. J., Mfg. Co., The, Stoneham, Mass. "Barwood."
Belmont Packing & Rubber Co., Philadelphia, Pa. "Belmont."
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Brapaco—Braiding & Packing Works of America, Brooklyn, N. Y.
Chicago-Wilcox Mfg. Co., Chicago, Ill.
Clinton Mfg. Co., Brooklyn, N. Y.
COP Rivalate—The Strong Machinery & Supply Co., New York, N. Y.
Consolidated Packing & Supply Co., New York, N. Y. "Consolidated."
Dealers Steam Packing Co., The, Palmyra, N. Y.
Diamond Rubber Co., Inc., Akron, O.
Donovan Packing & Rubber Co., Inc., Philadelphia, Pa.
Eagleine—Eagle Oil & Supply Co., Boston, Mass.
Eureka—Eureka Packing Co., Sales Dept., New York.
France Packing Co., The, Philadelphia, Pa.
Garlock—The Garlock Packing Co., Palmyra, N. Y.
General Asbestos & Rubber Co., Charleston, S. C.
Goetze Gasket & Packing Co., New Brunswick, N. J.
Goodyear—The Goodyear Tire & Rubber Co., Akron, O.
Gould's—Gould Packing Co., East Cambridge, Mass.
Greene, Tweed & Co., New York, N. Y.
Gutta Percha & Rubber Mfg. Co., New York, N. Y.
Helios—Crandall Packing Co., Palmyra, N. Y.
Huhn Mfg. Co., New York, N. Y.
John Crane—Crane Packing Co., Chicago, Ill.
Johns-Manville Corp., New York.
Knowlton—Geo. W. Knowlton Rubber Co., Boston.
Marco—The Mechanical Rubber Co., Cleveland, Ohio.
New York Belting & Packing Co., New York, N. Y.
Polar—Goodsell Packing Co., Maywood, Ill.
Ovalhole—Hollow Center Packing Co., Cleveland, O.
Pilley's Ring—Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Quaker City Rubber Co., Philadelphia, Pa. "P. P. P."
Republic Rubber Co., Youngstown, O.
Royal-White—W. H. Salisbury & Co., Inc., Chicago, Ill.
Selden's—Randolph Brandt, New York, N. Y.
Standard—Standard Packings Co., Cleveland, O.
Strong Machinery & Supply Co., New York, N. Y.
United States Rubber Co., New York, N. Y.
Vanda—W. H. Salisbury & Co., Inc., Chicago, Ill.
Western Packing & Supply Co., Chicago, Ill.
Wise & Bailey, Philadelphia, Pa.
Zena—Randolph Brandt, New York, N. Y.

PACKING, ASBESTOS, ROPE, TWIST AND WICK.

Ambler, Asbestos—Keasbey & Mattison Co., Ambler, Pa.
Asbestos—Federal Asbestos Co., Paterson, N. J.
Asbestos Fibre Spinning Co., North Wales, Pa.
Asbestos Textile Co., Inc., New York, N. Y.
Atlantic Asbestos Co., Philadelphia, Pa.
Belmont—Belmont Packing & Rubber Co., Philadelphia, Pa.
Braiding & Packing Works of America, Inc., Brooklyn, N. Y.
Bramco—Baltimore Roofing & Asbestos Mfg. Co., Asbestos, Md.

Cancos Mfg. Co., Philadelphia, Pa.
Carey, Philip, Mfg. Co., Cincinnati, O.
Cincinnati Rubber Mfg. Co., Cincinnati, O.
Clinton—Clinton Mfg. Co., Brooklyn, N. Y.
Consolidated Packing & Supply Co., New York, N. Y.
Crandall—Crandall Packing Co., Palmyra, N. Y.
Dealers' Steam Packing Co., The, Palmyra, N. Y.
Donovan Packing & Rubber Co., Inc., Philadelphia, Pa.
Eastern Asbestos Co., Providence, R. I.
Eureka—Eureka Packing Co., Sales Dept., New York.
Fieldco—R. B. Field & Co., Worcester, Mass.
Garco—General Asbestos & Rubber Co., Charleston, S. C.
Gasco—Gasket Supply Co., Philadelphia, Pa.
Goetze Gasket & Packing Co., New Brunswick, N. J.
Goodyear Tire & Rubber Co., Akron, O.
Guillott Metal Gasket & Supply Co., Chicago, Ill.
Janos—Janos Asbestos Co., New York, N. Y.
Johnson, Henry, Co., Inc., The, Jersey City, N. J.
Johns-Manville Corporation, New York, N. Y.
Keasbey & Mattison Co., Ambler, Pa.
Knowlton Rubber Co., Geo. W., Boston, Mass.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Live Steam—A. W. Chesterton Co., Boston, Mass.
Lone Rock—The Wm. L. McLellan Co., Bridgeport, Conn.
Marco—The Mechanical Rubber Co., Cleveland, Ohio.
Pactite—Federal Metallic Packing Co., Boston, Mass
Quaker City Rubber Co., Philadelphia, Pa.
Raco—Robt. A. Keasbey Co., New York, N. Y.
Runwel—Greene, Tweed &Co., New York.
Standard—Standard Packings Co., Cleveland, O.
Steamtite—Federal Asbestos Co., Paterson, N. J
Tisafine—Strong Machinery & Supply Co., The, New York, N. Y.
Union Rubber & Asbestos Co., Trenton, N. J.
United States Rubber Co., New York, N. Y.
Usaco—United States Asbestos Co., Manheim, Pa.
Walker and Forbes, Inc., Mamaroneck, N. Y.
Watson, H. F., Erie, Pa.
Western Packing & Supply Co., Chicago, Ill.
Wise & Bailey, Philadelphia, Pa.

PACKING, CAR JOURNAL.

Burstein, Meyer, & Sons, Neenah, Wis.
Hagy, J. Milton, Waste Works, Philadelphia, Pa. "Fidelity."
Perfection—Franklin Mfg. Co., Franklin, Pa.
Plumbago Hair Car Grease—Swan-Finch Oil Corp., New York, N. Y.
Western Packing & Supply Co., Chicago, Ill.

PACKING, CONDENSER TUBE.

Ambest—Eureka Packing Co., New York, N. Y.
Clinton Mfg. Co., Brooklyn, N. Y.
Donovan Packing & Rubber Co., Inc., Philadelphia, Pa.
John Crane—Crane Packing Co., Chicago, Ill.
Kotten Machine Co., Jersey City, N. J.
Standard—Standard Packings Co., Cleveland, O.

PACKING, CORK.

Witherup Cork Packing Co., Beaumont, Texas.

PACKING, COTTON.

Belmont—Belmont Packing & Rubber Co., Philadelphia, Pa.
Braiding & Packing Works of America, Inc., Brooklyn, N. Y.
Consolidated Packing & Supply Co., New York, N. Y.
Donovan Packing & Rubber Co., Inc., Philadelphia, Pa.
Eureka—Eureka Packing Co., Sales Dept., New York.
Gilmer, L. H., Co., The, Philadelphia, Pa.
Gould's—The Gould Packing Co., East Cambridge, Mass.
Hydraulic Press Mfg. Co., The, Columbus, O. "H. P. M. Two Tan."
Standard—Standard Packings Co., Cleveland, O.
Western Packing & Supply Co., Chicago, Ill.
Wise & Bailey, Philadelphia, Pa.

PACKING, DIAPHRAGM.

Clinton Mfg. Co., Brooklyn, N. Y.
Consolidated—Consolidated Packing & Supply Co. New York, N. Y.
Doermann-Roehrer Co., Cincinnati, O.
Donovan Packing & Rubber Co., Inc., Philadelphia Pa.
Gutta Percha & Rubber Mfg. Co., New York.
Losant—The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
Mechanical Rubber Co., New York, N. Y.
New York Rubber Corporation, Beacon, N. Y.
Quaker City Rubber Co., Philadelphia, Pa.
Red Bird—Union Rubber & Asbestos Co., Trenton, N. J.
Salisbury, W. H., & Co., Inc., Chicago, Ill. Trade names—Salco, Cross Expansion.
United States Rubber Co., New York, N. Y.
Western Packing & Supply Co., Chicago, Ill.

PACKING, DUCK.

Clinton Mfg. Co., Brooklyn, N. Y.
Clipper, Gulf, No. 57, Titan—Diamond Rubber Co., Inc., Akron, Ohio.
Donovan Packing & Rubber Co., Inc., Philadelphia, Pa.
General Asbestos & Rubber Co., Charleston, S. C. "Garco."
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Marco—The Mechanical Rubber Co., Cleveland, Ohio.
Republic Rubber Co., The, Youngstown, O.
Standard—Standard Packings Co., Cleveland, O.
Union Packing & Rubber Co., Inc., New York, N. Y.
United States Rubber Co., New York, N. Y.
Western Packing & Supply Co., Chicago, Ill.

PACKING, ELEVATOR.

Belmont Packing & Rubber Co., Philadelphia, Pa.
Clinton Mfg. Co., Brooklyn, N. Y.
Consolidated—Consolidated Packing & Supply Co., New York, N. Y.
Dealers' Steam Packing Co., The, Palmyra, N. Y.
Donovan Packing & Rubber Co., Inc., Philadelphia, Pa.
Eureka—Eureka Packing Co., New York, N. Y.
General Asbestos & Rubber Co., Charleston, S. C.
Goetze Gasket & Packing Co., New Brunswick, N. J.
Gould's—The Gould Packing Co., East Cambridge, Mass.
Hollow Center Packing Co., Cleveland, O. "Ovalhole."
John Crane—Crane Packing Co., Chicago, Ill.
Long Life—Sutherland Leather & Felt Co., Detroit, Mich.
Mabbs Hydraulic Packing Co., Chicago, Ill.
Mechanical Rubber Co., The, Cleveland, Ohio. "Marco."
Pilley's—Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Quaker City Rubber Co., Philadelphia, Pa.
Standard—Standard Packings Co., Cleveland, O.
Wear Well—Horace G. Preston Co., Detroit, Mich.
United States Rubber Co., New York, N. Y.
Western Packing & Supply Co., Chicago, Ill.
Wise & Bailey, Philadelphia, Pa.

PACKING, FELT.

Algco—Auburn Leather Goods Co., Hartford, Conn.
Barwood—The L. J. Barwood Mfg. Co., Stoneham, Mass.
Booth—The Booth Felt Co., Brooklyn, N. Y.
Brawley, T. R., Brooklyn, N. Y.
Fieldco—R. B. Field & Co., Worcester, Mass.
Star Felt Cutting Co., The, Brooklyn, N. Y.
Sutherland Leather & Felt Co., Detroit, Mich.
Tingue, Brown & Co., New York, N. Y.
Western Packing & Supply Co., Chicago, Ill.

PACKING, FIBROUS.

Baeder, Adamson & Co., Philadelphia, Pa. "Tan Fibre."
Barwood—The L. J. Barwood Mfg. Co., Boston, Mass.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Brawley, T. R., Brooklyn, N. Y.
Chicago-Wilcox Mfg. Co., Chicago, Ill.
Clinton Mfg. Co., Brooklyn, N. Y.
Consolidated—Consolidated Packing & Supply Co., New York, N. Y.
Continental Fibre Co., Newark, Del.
Crandall—Crandall Packing & Supply Co., Palmyra, N. Y.
Delaware Hard Fibre Co., Wilmington, Del.
Donovan Packing & Rubber Co., Inc., Philadelphia, Pa.
Dixie—The Dixie Packing Co., Atlanta, Ga.
Duroil—United States Asbestos Co. of Illinois, Chicago, Ill.
Endura—Endura Mfg. Co., Philadelphia, Pa.
Eureka—Eureka Packing Co., Sales Dept., New York.
Federalite—Federal Metallic Packing Co., Boston, Mass.
Fieldco—R. B. Field & Co., Worcester, Mass.
Goetze Gasket & Packing Co., New Brunswick, N. J.
Gould's—The Gould Packing Co., East Cambridge, Mass.
Marco—The Mechanical Rubber Co., Cleveland, Ohio.
Ovalhole—Hollow Center Packing Co., Cleveland, O.
Pactite—Federal Metallic Packing Co., Boston, Mass.
Pilley's—Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Quaker City Rubber Co., Philadelphia, Pa.
Sandow—Cincinnati Rubber Mfg. Co., Cincinnati, O.
Solar Compressed—Home Rubber Co., Trenton, N. J.
Standard—Standard Packings Co., Cleveland, O.
United States Rubber Co., New York, N. Y.
Western Packing & Supply Co., Chicago, Ill.
Wise & Bailey, Philadelphia, Pa.

PACKING, FLAX.

Albion Mfg. Co., Seattle Wash. "Albion."
Allen, W. D., Mfg. Co., Chicago, Ill. (Trade names—Arrow, Emergency, Magnolia.)
Bell—Belmont Packing & Rubber Co., Philadelphia, Pa.
Braiding & Packing Works of America, Inc., Brooklyn, N. Y. (Trade names—Brookbest, Standard.)
Cancos Mfg. Co., Philadelphia Pa.
Carbon—New York Belting & Packing Co., New York.
Chesterton, A. W., Co., Boston, Mass. "Boston," "Chesterton," "India," "Special," "Sterling."
Clinton—Clinton Mfg. Co., Brooklyn, N. Y.
Consolidated, Council, Senate and Assembly—Consolidated Packing & Supply Co., New York, N. Y.
Crandall—Crandall Packing Co., Palmyra, N. Y.
Dealers' Steam Packing Co., Palmyra, N. Y.
Dollar—Goodsell Packing Co., Maywood, Ill.
Donovan Packing & Rubber Co., Inc., Philadelphia, Pa.
Double Diamond—New York Belting & Packing Co., New York, N. Y.
Double Service Packing Co., Philadelphia, Pa.
Eagleine—Eagle Oil & Supply Co., Boston, Mass.
Eureka—Eureka Packing Co., Sales Dept., New York.
Federal Asbestos Co., Paterson, N. J.
Garlock—The Garlock Packing Co., Palmyra, N. Y.
Goetze Gasket & Packing Co., New Brunswick, N. J.
G. W. K.—Geo. W. Knowlton Rubber Co., Boston, Mass.
Hollow Center Packing Co., Cleveland, O.
Hudson Mechanical Rubber Co., New York, N. Y.
Janos Asbestos Co., New York.
Johnson, Henry, Co., Inc., Jersey City, N. J. (Trade names—Beaver, Merino.)
La Favorite Rubber Mfg. Co., Paterson, N. J.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Marco—The Mechanical Rubber Co., Cleveland, Ohio.
Metric Packing Co., Div. of The Hewitt Rubber Co., Buffalo, N. Y.
Ovalhole—Hollow Center Packing Co., Cleveland, O.
Para—New York Belting & Packing Co., New York.
Quaker City Rubber Co., Philadelphia, Pa. "Dragon," "Liberty Bell," "Uncle Sam," "Valley Forge."
Rising Sun—Cancos Mfg. Co., Philadelphia, Pa.
Rivalate—The Strong Machinery & Supply Co., New York, N. Y.
Salisbury, W. H., & Co., Inc., Chicago, Ill. (Trade names—Apex, Nemo, W. H. S. & Co.)
Scioto—Cincinnati Rubber Mfg. Co., Cincinnati, O.
Silk Fibre—The Jas. B. Hunt Mfg. Co., Trenton, N. J
Standard—Standard Packings Co., Cleveland, O.
Union Asbestos & Rubber Co., Chicago, Ill.
Union Rubber & Asbestos Co., Newark, N. J.
United States Rubber Co., New York, N. Y.
Western Packing & Supply Co., Chicago, Ill.
Western Rubber Co., Goshen, Ind.

PACKING, HEMP.

Advance Packing & Supply Co., The, Chicago, Ill.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Braiding & Packing Works of America, Inc., Brooklyn, N. Y. (Trade names—Brookbest, Standard.)
Clinton—Clinton Mfg. Co., Brooklyn, N. Y.
Consolidated Packing & Supply Co., New York, N. Y. "Consolidated."
Donovan Packing & Rubber Co., Inc., Philadelphia, Pa.
Eureka Packing Co., New York, N. Y.
Goetze Gasket & Packing Co., New Brunswick, N. J.
H. & A.—Hooven & Allison Co., The, Xenia, Ohio.
Ovalhole—Hollow Center Packing Co., Cleveland, O.
Quaker City Rubber Co., Philadelphia, Pa.
Standard—Standard Packings Co., Cleveland, O.
Union Asbestos & Rubber Co., Chicago, Ill.
Union Rubber & Asbestos Co., Trenton, N. J.
Western Packing & Supply Co., Chicago, Ill.
Winne, Frank W., & Son, Philadelphia, Pa.
Wise & Bailey, Philadelphia, Pa.

PACKING, HOT WATER.

Advance Packing & Supply Co., The, Chicago, Ill.
Albion—Albion Mfg. Co., Seattle, Wash.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Braiding & Packing Works of America, Inc., Brooklyn, N. Y.
Clinton Mfg. Co., Brooklyn, N. Y.
Dealers' Steam Packing Co., The, Palmyra, N. Y.
Donovan Packing & Rubber Co., Inc., Philadelphia, Pa.
General Asbestos & Rubber Co., Charleston, S. C. "Carolina."
Goetze Gasket & Packing Co., New Brunswick, N. J.
John Crane—Crane Packing Co., Chicago, Ill.
Marco—The Mechanical Rubber Co., Cleveland, Ohio.
Ovalhole—Hollow Center Packing Co., Cleveland, O.
Pilley's—Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Puritan—The Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
Standard—Standard Packings Co., Cleveland, O.
Union Asbestos & Rubber Co., Chicago, Ill.
Union Rubber & Asbestos Co., Trenton, N. J.
United States Rubber Co., New York, N. Y.
Western Packing & Supply Co., Chicago, Ill.

PACKING, HYDRAULIC.

(See also "Packing, Hydraulic, Leather.")

Advance Packing & Supply Co., The, Chicago, Ill.
Albion Mfg. Co., Seattle, Wash. "Albion."
Belmont Packing & Rubber Co., Philadelphia, Pa.
Bickford & Francis Belting Co., Buffalo, N. Y.
Cancos Mfg. Co., Philadelphia, Pa. "Marguerite."
Carey—The Philip Carey Mfg. Co., Cincinnati, O.
Cassco Bar-Metallic Packing Co., Chicago, Ill.
Cesco—Chicago Engineer Supply Co., Chicago, Ill.
Chicago Belting Company, Chicago, Ill.
Cleveland Faucet Co., The, Cleveland, O.
Clinton—Clinton Mfg. Co., Brooklyn, N. Y.
Cook Belting Co., H. N., San Francisco, Cal.
Consolidated—Consol. Packing & Supply Co., New York, N. Y.
Crandall Packing Co., Palmyra, N. Y. "Helios."
Diamond Rubber Co., Inc., Akron, Ohio. Trade names—Diamond, Titan, Sphinx, Gulf, Moose, Clipper, Defiance.
Dominion—The Darcoid Company, New York, N. Y.
Donovan Packing & Rubber Co., Inc., Philadelphia, Pa.
Duo—The Garlock Packing Co., Palmyra, N. Y.
Eagleine—Eagle Oil & Supply Co., Boston, Mass.
Elmes Engineering Works, Chas. F., Chicago, Ill.
Eureka—Eureka Packing Co., Sales Dept., New York.
Excelsior—Excelsior Valve Co., Inc., New York, N. Y.
Falcon—Goodrich Rubber Co., B. F., Akron, Ohio.
France Packing Co., The, Philadelphia, Pa.
General Asbestos & Rubber Co., Charleston, S. C. (Trade names—Chicora, Commercial, Garco, Gilt Edge.)
Goetze Gasket & Packing Co., New Brunswick, N. J.
Gould's—The Gould Packing Co., East Cambridge, Mass.
Gutta Percha & Rubber Mfg. Co., New York.
Hewitt Rubber Co., Buffalo, N. Y.
Hudson Mechanical Rubber Co., New York, N. Y.
Hydraulic Press Mfg. Co., The, Columbus, O. (high pressure). "H-P-M."
Janos Asbestos Company, New York, N. Y.
Johnson, Henry, Co., Inc., The, Jersey City, N. J., "Clay," "Johnson's," "Sable."
Joseph Allen's—Allen Packing Co., Collingswood, N. J.
Kingfisher—The Strong Machinery & Supply Co., New York, N. Y.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Long Life—Sutherland Leather & Felt Co., Detroit, Mich.
Mabbs Hydraulic Packing Co., Chicago, Ill.
Marco—The Mechanical Rubber Co., Cleveland, Ohio.
Monitor—The B. F. Goodrich Rubber Co., Akron, O.
Monterey—Goodyear Tire & Rubber Co., Akron, O.
Montgomery-Stewart Corp., Philadelphia, Pa.
New York Belting & Packing Co., New York, N. Y. "B. & P," "Carbon," "Double Diamond."
New York Rubber Corporation, Beacon, N. Y.
Ovalhole—Hollow Center Packing Co., Cleveland, O.
Pilley's—Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Protector—Woven Steel Hose & Rubber Co., Trenton, N. J.
Puritan, Norwood—The Cincinnati Rubber Mfg. Co., Cincinnati, O.
Quaker City Rubber Co., Philadelphia, Pa. "Crown," "Donkey," "Hercules."
Republic Rubber Co., The, Youngstown, O.
Salisbury, W. H., & Co., Chicago, Ill.
Selden—Randolph Brandt, New York, N. Y.
Solid Ring—A. W. Chesterton Co., Boston, Mass.
Sphinx—The Diamond Rubber Co., Inc., Akron, O.
Spider—New York Belting & Packing Co., New York.
Standard—Standard Packings Co., Cleveland, O.
Sutherland Leather & Felt Co., Detroit, Mich.
Titan—The Diamond Rubber Co., Akron, O.
Union Asbestos & Rubber Co., Chicago, Ill.
Union Rubber & Asbestos Co., Trenton, N. J.
United States Rubber Co., New York, N. Y.
Vim—E. F. Houghton & Co., Philadelphia, Pa.
Voorhees Rubber Mfg. Co., Jersey City, N. J. "Criterion," "Union."
Walker, Chas. W., Sons & Co., Newark, N. J.
Walker, James, & Co., Ltd., New York, N. Y.
Wearwell & Longwear—Wearwell Gasket & Packing Co., Camden, N. J.
Wear Well—Horace G. Preston Co., Detroit, Mich.
Western Packing & Supply Co., Chicago, Ill.
Western Rubber Co., Goshen, Ind.
Wise & Bailey, Philadelphia, Pa.
Wolverine Leather Goods Co., Detroit, Mich.
Wyoga—Goodyear Tire & Rubber Co., Akron, O.
Zena—Randolph Brandt, New York, N. Y.

PACKING, HYDRAULIC, LEATHER AND RAWHIDE.

Alexander Brothers, Philadelphia, Pa.
Algco—Auburn Leather Goods Co., Hartford, Conn.
Barwood—The L. J. Barwood Co., Stoneham, Mass.
Bonner & Barnewall, Inc., New York, N. Y.
Booth Felt Co., Inc., The, Brooklyn, N. Y.
Braiding & Packing Works of America, Inc., Brooklyn, N. Y.
Chibeco—Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago, Ill.
Cocheco—I. B. Williams & Sons, Dover, N. H.
Darling Valve & Mfg. Co., Ltd., The, Williamsport, Pa.
Dominion Asbestos & Rubber Corp., New York.
Fieldco—R. B. Field & Co., Worcester, Mass.
Flexo—Cross Bros. & Co., Rochester, N. Y.
Forest City Leather Washer Co., Rockford, Ill.
Graton & Knight Co., Worcester, Mass.
Greene, Burton, Leather Co., Chicago, Ill. "Gibraltar."
Hudson Belting Co., Worcester, Mass.
Hydraulic Press Mfg. Co., The, Columbus, O. (high pressure). "H-P-M."
John Crane—Crane Packing Co., Chicago, Ill.
Johns-Manville Corp., New York.
Johnson, Henry, Co., Inc., The, Jersey City, N. J.
Judd & Leland Mfg. Co., Clifton Springs, N. Y.
Kendrick Valve & Washer Co., Syracuse, N. Y.
Kromax, Paxtite—The Watson-Stillman Co., New York, N. Y.
Krome—The Chicago Rawhide Mfg. Co., Chicago, Ill.
Ladew, Edward R., Co., Inc., New York, N. Y.
Mabbs—Mabbs Hydraulic Packing Co., Chicago.
MacWatty Belting Co., Providence, R. I.
Marston, L. G., & Co., Boston, Mass.
M. L. P.—Michigan Leather Packing Co., Inc., Detroit, Mich.
National Leather Belting Co., New York, N. Y.
New York Leather Belting Co., Brooklyn, N. Y. (cup flange, U).
Nott, W. S., Company, Minneapolis, Minn.
Porpoise—Eastern Machinery & Equipment Co., Inc., Philadelphia, Pa.
Rawhide—W. H. Salisbury & Co., Inc., Chicago, Ill.
Rockford Leather Washer Co., Rockford, Ill.
Schieren, Chas. A., Co., New York, N. Y. (Trade names—Duxbak, Bulls Head, Casco.)
Sherman, H. B., Mfg. Co., Battle Creek, Mich.
Standard—Standard Packings Co., Cleveland, O.
Sutherland Leather & Felt Co., Detroit, Mich.
Vim—E. F. Houghton & Co., Philadelphia, Pa.
Wakelee—The Lubron Co., Everett, Mass.
Wear Well—Horace G. Preston Co., Detroit, Mich.
Western Packing & Supply Co., Chicago, Ill.
White Rock, Stonewall—Goodall Rubber Co., Philadelphia, Pa.

PACKING, JUTE.

Advance Packing & Supply Co., The, Chicago, Ill.
Berkeley Mfg. & Supply Co., Jersey City, N. J. "Berkeley."
Brapaco—Braiding & Packing Works of America, Inc., Brooklyn, N. Y.
Cancos Mfg. Co., Philadelphia, Pa.
Clinton—Clinton Mfg. Co., Brooklyn, N. Y.
Dealers' Steam Packing Co., The, Palmyra, N. Y.
Donovan Packing & Rubber Co., Inc., Philadelphia, Pa.
Eagle—American Mfg. Co., Brooklyn, N. Y.
Eureka—Eureka Packing Co., Sales Dept., New York, N. Y.
Federal Asbestos Co., Paterson, N. J.
Fischer & Hayes Rope & Steel Co., Chicago, Ill.
G. S. O. Co.—Geo. Stratford Oakum Co., Jersey City, N. J.
Goetze Gasket & Packing Co., New Brunswick, N. J.
Hoffman Corr Mfg. Co., Philadelphia, Pa.
H. & A.—Hooven & Allison Co., The, Xenia, Ohio.
Marco—The Mechanical Rubber Co., New York, N. Y.
Standard—Standard Packings Co., Cleveland, O.
Stratford—Stratford Oakum Co., Geo., Jersey City, N. J.
Union Rubber & Asbestos Co., Trenton, N. J.
United States Rubber Co., New York, N. Y.
Western Packing & Supply Co., Chicago, Ill.
Winne, Frank W., & Sons, Inc., Philadelphia, Pa.
Wise & Bailey, Philadelphia, Pa.

PACKING, METAL, FOR PISTON & VALVE RODS.

Aldrich Pump Co., Allentown, Pa.
American—American Metallic Packing Co., Pittsburgh, Pa.
Gutta Percha & Rubber Mfg. Co., New York, N. Y.
Harper Mfg. Co., Chester, Pa.
John Crane—Crane Packing Co., Chicago, Ill.
Martell Packing Co., Elyria, Ohio.
Swain Co., The, Chicago, Ill.
Tiptop—France Packing Co., Tacony, Philadelphia, Pa.
Western Packing & Supply Co., Chicago, Ill.

PACKING, PISTON, DIAGONAL, GUM CORE, RING, ROUND, SPIRAL, SECTIONAL, SQUARE AND WEDGE.

Acme Rubber Mfg. Co., The, Trenton, N. J.
Admiral—Mulconroy Co., Inc., Philadelphia.
Advance Packing & Supply Co., Chicago, Ill.
Albion Mfg. Co., Seattle, Wash.
Alta—Pacific Coast Rubber & Sup. Co., San Francisco Cal.
American Steam Packing Co., Boston, Mass. (Trade names—Asbesto-Metallic, High Pressure T, Core American Spiral, Diamond, Electric Spiral, Favorite, Special Diamond, Spiral, Tuck's.)
Argus Asbestos Co., Inc., Port Chester, N. Y.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Black Beauty—Union Rubber & Asbestos Co., Trenton, N. J.
Blackoid—Thermoid Rubber Co., Trenton, N. J.
Black Squadron—Cancos Mfg. Co., Philadelphia, Pa.
Booth Felt Co., The, Brooklyn, N. Y.
Braiding & Packing Works of America, Inc., Brooklyn, N. Y.
Buffalo Weaving & Belting Co., Buffalo, N. Y. (molded rubber).
Burmont—Goodall Rubber Co., Inc., Philadelphia, Pa.
California Red—Union Rubber & Asbestos Co., Trenton, N. J.
Cassco—Cassco Bar-Metallic Packing Co., Chicago, Ill.
Chesterton, A. W., Co., Boston, Mass. (Trade names—Atlantic, Carson's, Boston, Chesterton's, Combination, Elastic, Expansion, Lubrobestos, Monarch, Melrose, Metallo, Metal-Wove, Pressure Proof, Rubberbestos, Tucks, Warrior.)
Cincinnati Gasket & Packing Co., Cincinnati, O. "Cincinnati."
Cincinnati Rubber Mfg. Co., Cincinnati, O. (Trade names—Norka, Norwood, Old Crow, Sandow.)
Clinton—Clinton Mfg. Co., Brooklyn, N. Y.
Comet—Pacific Coast Rubber & Sup. Co., San Francisco, Cal.
Congress—Pacific Coast Rubber & Sup. Co., San Francisco, Cal.
Consolidated Packing & Supply Co., New York, N. Y. (Trade names—Consolidated, Council, Senate.)
Coon—Cancos Mfg. Co., Philadelphia, Pa.
Crown—Mulconroy Co., Inc., Philadelphia, Pa.
Dealers Steam Packing Co., The, Palmyra, N. Y.
Defender—Cancos Mfg. Co., Philadelphia, Pa.
Diamond Rubber Co., Inc., Akron, O. "Diamond," "Indian."
Dollar—Goodsell Packing Co., Maywood, Ill.
Dominion—The Darcoid Company, New York, N. Y.
Donovan Packing & Rubber Co., Inc., Philadelphia, Pa.
Durabla—Durabla Mfg. Co., New York, N. Y.
Duo—The Garlock Packing Co., Palmyra, N. Y.
Elkhart Rubber Works, Elkhart, Ind.
Empire Rubber & Tire Co., Trenton, N. J.
Eureka—Eureka Packing Co., Sales Dept., New York.
Ever-Ready Paste Packing Co., Pittsburg, Kans.
Falcon—The B. F. Goodrich Rubber Co., Akron, O.
General Asbestos & Rubber Co., Charleston, S. C. (Trade names—Dixie, Fibro-Metallic, Diagonal, Garco Waterproof, Helicoid, Ideal, Semibronze, Sumter, Valbestine, Ringpak.)
Globe—Cancos Mfg. Co., Philadelphia, Pa.
Gould's—The Gould Packing Co., East Cambridge, Mass.
Grapho—Advance Packing & Supply Co., Chicago, Ill.
Graphobestos—Chicago Engineering Supply Co., Chicago, Ill.
Gray Beauty—Union Rubber & Asbestos Co., Trenton, N. J.
Guillott Metal Gasket & Supply Co., Chicago, Ill.
Gulf—The Diamond Rubber Co., Akron, O.
Gutta Percha Rubber & Mfg. Co., New York.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Helios—Crandall Packing Co., Palmyra, N. Y.
Hewitt Rubber Co., Buffalo, N. Y.
Hickory—Randolph Brandt, New York, N. Y.
Holmes—Holmes Metallic Packing Co., Wilkesbarre, Pa.
Hudson—Hudson Mechanical Rubber Co., New York, N. Y.
Improved—General Asbestos & Rubber Co., Charleston, S. C.
I. X. L.—Chas. Nuhring & Bro., Cincinnati, O.
Johns-Manville Corporation, New York, N. Y. "Duplex."
J. B. H.—The Jas. B. Hunt Mfg. Co., Trenton, N. J.
Janos Asbestos Co., New York, N. Y.
Jerome-Edwards Metallic Packing Co., Chicago, Ill.
John Crane—Crane Packing Co., The, Chicago, Ill.
Johnson, Henry Co., Inc., Jersey City, N. J., "Alden," "Gardon," "Johnson's," "Lindon," "Morland," "Phoenix," "Romora," "Waldo."
Keasbey & Mattison Co., Ambler, Pa.
Klinger's Patent Two-Color Stuffingbox—Klingerit, Inc., New York, N. Y.
Knowlton, Geo. W., Rubber Co., Boston, Mass. "G. W. K."

La Favorite Rubber Mfg. Co., Paterson, N. J. (Trade names—Gilt Edge, Mastinite, Nusolite, Nuskivo, Soma, La Favorite Interlocking Corner, Hawthorne, Marvel, Double Angle, Solid Diagonal Protected, Solid Diagonal Jacketed, Itsago, Perry.)
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lion—James Walker & Co., Ltd., New York, N. Y.
Lone Rock—The Wm. L. McLellan Co., Bridgeport, Conn.
Lubron Co., The, Everett, Mass.
Magneto—Randolph Brandt, New York, N. Y.
Manhattan Rubber Mfg. Co., The, Passaic, N. J. (Trade names—Fulton, Mohican, Paranite.)
Marco—The Mechanical Rubber Co., New York, N. Y.
Martell Packings Co., Elyria, O.
Mineral Rubber Products Co., The, Moline, Ill.
New York Belting & Packing Co., Ltd., New York, N. Y. "B. & P," "Cobbs," "Crocoite," "Graphon," "Tucks," "Vulcan."
New York Rubber Corporation, Beacon, N. Y.
O. I. M.—Home Rubber Co., Trenton, N. J.
Ovalhole—Hollow Center Packing Co., Cleveland, O.
Palco, Palmetto—Greene, Tweed & Co., New York, N. Y.
Pennsylvania Rubber Co., The, Jeannette, Pa. "Reindeer."
Pilley's—Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pioneer—Cancos Mfg. Co., Philadelphia, Pa.
Premier—Mulconroy Co., Inc., Philadelphia, Pa.
Pyramid—Cancos Mfg. Co., Philadelphia, Pa.
Quaker City Rubber Co., Philadelphia, Pa. (Trade names—Crown, Donkey, Dragon, Egyptian, Flax, Krusader, Liberty Bell, Neptune, P. P. P., Quaker City, Uncle Sam, Valley Forge, Valvolite.)
Raco—Robt. A. Keasbey Co., New York, N. Y.
Red Bird—Union Rubber & Asbestos Co., Trenton, N. J.
Red Jacket—Gutta Percha & Rubber Mfg. Co., New York, N. Y.
Republic Rubber Co., The, Youngstown, O.
Safety—Steel Mill Packing Co., Detroit, Mich.
Salisbury, W. H., & Co., Inc., Chicago, Ill. (Trade names—Apex, Diagonal, Hevea, Hi-Presh, Nemo, Paragon, Salco Cross Expansion, Surprise.
Selden's—Randolph Brandt, New York, N. Y.
Senate—Pacific Coast Rubber & Sup. Co., San Francisco, Cal.
Skookum—Pioneer Rubber Mills, San Francisco, Cal.
Smoky City—American Steam Packing Co., Boston.
Smoky City—Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Smoky City—W. D. Allen Mfg. Co., Chicago, Ill.
Spartan—Goodall Rubber Co., Philadelphia, Pa.
Standard Packings Co., Cleveland, O. "Standard."
Steamtite—Federal Asbestos Co., Paterson, N. J.
Strong's—Strong Machinery & Supply Co., New York.
Titan, XX—Diamond Rubber Co., Inc., Akron, O.
Tribune—Continental Rubber Works, Erie, Pa.
Tucks—The Diamond Rubber Co., Akron, O.
United & Globe Rubber, Inc., Trenton, N. J.
United States Rubber Co., New York, N. Y.
Union Rubber & Asbestos Co., Trenton, N. J.
Usaco—United States Asbestos Co., Manheim, Pa.
Vulcabeston—Johns-Pratt Co., Hartford, Conn.
Watson, H. F., Erie, Pa.
Wearwell Gasket & Packing Co., Camden, N. J.
Western Packing & Supply Co., Chicago, Ill.
Western Rubber Co., Goshen, Ind.
White Beauty—Union Rubber & Asbestos Co., Trenton, N. J.
White Dove—Cancos Mfg. Co., Philadelphia, Pa.
White Squadron—Cancos Mfg. Co., Philadelphia, Pa.
Wise & Bailey, Philadelphia, Pa.
Young, C. C., Jersey Shore, Pa.
Zena—Randolph Brandt, New York, N. Y.

PACKING, PISTON, METALLIC.

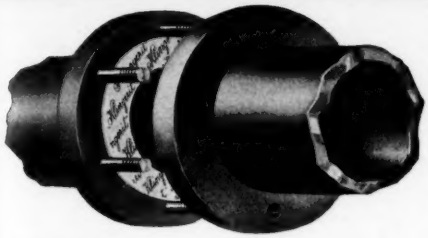
Advance Packing & Supply Co., The, Chicago, Ill.
Albion—Albion Mfg. Co., Seattle, Wash.
Ambest—Eureka Packing Co., New York, N. Y.
Ambest—W. H. Salisbury & Co., Inc., Chicago, Ill.
American Metallic Packing Co., Pittsburgh, Pa.
Anchor Packing Co., The, Philadelphia, Pa.
Asbestos Fibre Spinning Co., North Wales, Pa.
B. B.—J. C. Edgecombe & Co., New York, N. Y.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Cancos Mfg. Co., Philadelphia, Pa.
Carey—The Philip Carey Mfg. Co., Cincinnati, O.
Cassco—Cassco Bar-Metallic Packing Co., Chicago.
Champion—Cancos Mfg. Co., Philadelphia, Pa.
Clark—Clark Flexible Metallic Packing Co., Portland, Maine.
Clinton Mfg. Co., Brooklyn, N. Y.
Colossus—Colossus Co., Inc., Shreveport, La.
Conneaut (plastic)—The Conneaut Packing Co., Conneaut, O.
Consolidated—Consolidated Packing & Supply Co., New York.
Cook's—C. Lee Cook Mfg. Co., Louisville, Ky.
Crandall—Crandall Packing Co., Palmyra, N. Y.
Diamond Rubber Co., Inc., Akron, O. Trade names—Gulf, Titan, K. H. Diamond, Red Core.
Dominion—The Darcoid Company, New York, N. Y.
Donovan Packing & Rubber Co., Inc., Philadelphia, Pa.
Durabla—Durabla Mfg. Co., New York, N. Y.
Durametallic Corporation, Kalamazoo, Mich. "Durametallic."
Duval—Power Specialty Co., New York, N. Y.
Elite—Cincinnati Gasket & Packing Co., Cincinnati, O.
F. P. Metal—John Finn Metal Works, San Francisco, Cal.
Faultless—Hoyt Metal Co., St. Louis, Mo.
Federalite—Federal Metallic Packing Co., Boston, Mass. (flexible, compressible).
France Packing Co., The, Philadelphia, Pa.
Garlock—The Garlock Packing Co., Palmyra, N. Y.
General Asbestos & Rubber Co., Charleston, S. C.
Glacier—Glacier Metal Co., Richmond, Va.
Globe—Globe Kneadable Metallic Packing Co., Inc., Brooklyn, N. Y.
Goetze Gasket & Packing Co., New Brunswick, N. J. "Goetze's."
Grapho Metal Packing Co., Indianapolis, Ind.
Guillott Metal Gasket & Supply Co., Chicago, Ill.
Hammett Machine Works, Troy, N. Y. (Trade names—Staytite, Trojan.)
Harper Mfg. Co., Chester, Pa.
Hewitt Rubber Co., Buffalo, N. Y.
High-Speed Metallic Packing Co., Homewood, Ill. "High-Speed," "Perpetual."
Holmes Metallic Packing Co., Wilkes-Barre, Pa. "Holmes."
Hudson—Hudson Mech'l Rubber Co., New York.
Huhn Mfg. Co., New York, N. Y.
John Crane—Crane Packing Co., Chicago, Ill.
Libby, R. O., & Co., Norwich, Conn.
Lubestos, Stemtite—Metric Packing Div. of The Hewitt Rubber Co., Buffalo, N. Y.
Lubra—Western Packing & Supply Co., Chicago, Ill.
Lubricating Metal Co., New York, N. Y.
Magneto—Randolph Brandt, New York, N. Y.
Mellor Packing Mfg. Co., Jersey City, N. J.
Metalpac—Goodsell Packing Co., Maywood, Ill.
Monarch Steam Blower Co., The, Troy, N. Y. "Sterling."
Morris Metallic Packing Co., Philadelphia, Pa.
National—National Metallic Packing Co., Oberlin, O.
New Jersey Asbestos Co., The, New York, N. Y. "V-Pilot."
Northern Metallic Packing Co., St. Paul, Minn. "Northern," "Jerome," "U. S. Types."
Plastic—Hollow Center Packing Co., Cleveland, O.
Paxton-Mitchell Co., The, Omaha, Neb.
Perfection—Chicago Engineer Supply Co., Chicago.
Provo—Provost Engineering Corp., Brooklyn, N. Y.
Red Seal—John Simmons Co., New York, N. Y. (kneadable).
Rex—Goetze Gasket & Packing Co., New Brunswick, N. J.
Rhopac—Chicago Rhopac Products Co., Chicago, Ill.
Rivalate—The Strong Machinery & Supply Co., New York.
Rogers—Chaplin-Fulton Mfg. Co., Pittsburgh, Pa.
Standard—Standard Packings Co., Cleveland, O.
Tripp—W. B. Merrill & Co., Boston, Mass.
20th Century—The Martell Packings Co., Elyria, O.
United & Globe Rubber, Inc., Trenton, N. J.
U. S. Metallic Packing Co., Philadelphia, Pa. "United States."
Valvetite—Akron Metallic Gasket Co., Akron, Ohio.
Wakelee—Lubron Co., The, Everett, Mass.
Walker, James, & Co., Ltd., New York, N. Y. "Lion."
Walker, Thos., & Sons, Philadelphia, Pa.
Walsh—Walsh Packing Co., Philadelphia, Pa.
Western Packing & Supply Co., Chicago, Ill.
Wilcox—Chicago-Wilcox Mfg. Co., Chicago, Ill.

PACKING, PLUMBAGO.

Advance Packing & Supply Co., Chicago, Ill.
American Steam Packing Co., Boston, Mass.
Clinton Mfg. Co., Brooklyn, N. Y.
Consolidated—Consolidated Packing & Supply Co. New York, N. Y.
Donovan Packing & Rubber Co., Inc., Philadelphia, Pa.
Eureka—Eureka Packing Co., New York, N. Y.
Gasco—Gasket Supply Co., Philadelphia, Pa.
Gould's—Gould Packing Co., East Cambridge, Mass.
Hudson Mechanical Rubber Co., New York.
Liberty—Continental Rubber Works, Erie, Pa.
Smoky City—Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Western Packing & Supply Co., Chicago, Ill.
White Cross—Home Rubber Co., Trenton, N. J.
Wise & Bailey, Philadelphia, Pa.

PACKING, PUMP.

Advance Packing & Supply Co., Chicago, Ill.
Algco—Auburn Leather Goods Co., Hartford, Conn.
American Vulcanized Fibre Co., Wilmington, Del.



"Klingerit" Inc.

KLINGERIT ASBESTOS SHEET PACKING

Has a world-wide reputation for superiority and extraordinary qualities as a thoroughly reliable heat proof and indestructible packing, for use as gaskets in connection with all pressures of steam and more especially

FOR HIGH PRESSURE SATURATED OR SUPERHEATED STEAM OF EXTREME TEMPERATURES

It will successfully resist the action and deteriorating effects of dry heat, acids, oils, ammonia, alkalies, hot sugar solutions, gases, etc.

Like all successful inventions, Klingerit has been followed by many imitations closely resembling the genuine product.

No one of these imitations has reached the high standard of excellence, durability, economy, and wide application which makes Klingerit so universally in demand.

KLINGERIT IS THE ORIGINAL INVENTION

And will be readily distinguished as the genuine article by the manufacturers trade mark "Klingerit" (Reg. U. S. Pat. Off.) stamped closely all over one side of its surface.

It will not press out of the joints. It will not burn or blow out.

Unlike other packings or gaskets, it is unnecessary to keep continually following up bolts and nuts after the first tightening.

Steam and Power Specialties

16-22 Hudson Street, New York City

Belmont Packing & Rubber Co., Philadelphia, Pa. "Belmont."
Cassco Bar-Metallic Packing Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago, Ill.
Clinton Mfg. Co., Brooklyn, N. Y.
Consolidated Packing & Supply Co., New York, N. Y. "Consolidated."
Crandall Packing Co., Palmyra, N. Y.
Dixie—The Dixie Packing Co., Atlanta, Ga.
Dixie, Heclabronze, Hecla, Semihecla—General Asbestos & Rubber Co., Charleston, S. C.
Donovan Packing & Rubber Co., Inc., Philadelphia, Pa.
Eureka—Eureka Packing Co., Sales Dept., New York, N. Y.
Excelsior Valve Co., New York, N. Y.
Federalite—Federal Metallic Packing Co., Boston, Mass.
Goetze Gasket & Packing Co., New Brunswick, N. J.
Gould's—Gould Packing Co., East Cambridge, Mass.
Gutta Percha & Rubber Mfg. Co., New York.
Hollow Center Packing Co., Cleveland, O. "Ovalhole."
Ideal—Lake Erie Mfg. Co., Inc., Buffalo, N. Y.
Improved—A. W. Chesterton Co., Boston, Mass.
John Crane—Crane Packing Co., Chicago, Ill.
Knowlton—Geo. W. Knowlton Rubber Co., Boston
Mabbs—Mabbs Hydraulic Packing Co., Chicago, Ill.
Meruco—The Mechanical Rubber Co., Cleveland, O.
Marsh, Chas. W., Muskegon, Mich.
Martell Packings Co., Elyria, O.
New York Rubber Corporation, Beacon, N. Y.
"98"—Goodsell Packing Co., Maywood, Ill.
Quaker City Rubber Co., Philadelphia, Pa. "P. P. P."
Republic Rubber Co., The, Youngstown, O.
Salisbury, W. H., & Co., Inc., Chicago, Ill. (Trade names—Hi-Presh, Superfine, XXX.)
Standard Packings Co., Cleveland, O. "Standard."
Sutherland Leather & Felt Co., Detroit, Mich.
United States Rubber Co., New York, N. Y.
Western Packing & Supply Co., Chicago, Ill.

PACKING, RAWHIDE.

Chicago Rawhide Mfg. Co., The, Chicago, Ill.
Mabbs—Mabbs Hydraulic Packing Co., Chicago, Ill.
Western Packing & Supply Co., Chicago, Ill.

PACKING, SHEET, ASBESTOS.

A-B-C—American Brake Lining Co., Sellersville, Pa.
Asbestos Textile Co., Inc., New York, N. Y.
Advance Packing & Supply Co., Chicago, Ill.
Akronite—Akron Metallic Gasket Co., Akron, O.
Artesian—Adkins, Young & Allen Co., Chicago, Ill.
Asbestos Fibre Spinning Co., North Wales, Pa.
Asbo—W. H. Salisbury & Co., Inc., Chicago, Ill.
Auto—A. W. Chesterton Co., Boston, Mass.
Baltimore Roofing & Asbestos Mfg. Co., Asbestos, Md. "Bramco."
Belmont—Belmont Packing & Rubber Co., Philadelphia, Pa.
Braiding & Packing Works of America, Inc., Brooklyn, N. Y.
Cancos—Cancos Mfg. Co., Philadelphia, Pa.
Carey—The Philip Carey Co., Cincinnati, O.
Chesterton Co., A. W., Boston, Mass. "Lubrobestos."
Consolidated—Consolidated Packing & Supply Co., New York, N. Y.
Demon—Hart Packing Co., Boston, Mass.
Dealers' Steam Packing Co., The, Palmyra, N. Y.
Donovan Packing & Rubber Co., Inc., Philadelphia, Pa.
Durabla—Durabla Mfg. Co., New York, N. Y.
Eagleine—Eagle Oil & Supply Co., Boston, Mass.
Essex Rubber Co., Inc., Trenton, N. J.
Everlast—Goodyear Tire & Rubber Co., Akron, O.
Evertite—U. S. Indestructible Gasket Co., Brooklyn, N. Y.
Falcon—Goodrich Rubber Co., B. F., Akron, O.
Fieldco—R. B. Field & Co., Worcester, Mass.
Franklin Mfg. Co., Franklin, Pa.
G. W. K.—Geo. W. Knowlton Rubber Co., Boston, Mass.
Garlock—The Garlock Packing Co., Palmyra, N. Y.
Gasco—Gasket Sup. Co., Philadelphia, Pa.
General Asbestos & Rubber Co., Charleston, S. C. (Trade names—Calibestos, Garcobestos, Petrobestos, Pyroid.)
Gladiator—New Jersey Asbestos Co., New York, N. Y.
Goetzerit—Goetze Gasket & Packing Co., New Brunswick, N. J.
Hudson High Pressure—Hudson Mechanical Rubber Co., New York, N. Y.
Indestructene—The Combination Rubber Mfg. Co., Bloomfield, N. J.
Janos Asbestos Co., New York.
Johns-Manville Corporation, New York. "Kearsage."
Keasbey & Mattison Co., Ambler, Pa. (Trade names—Amblerite, Rhinoceros.)
Klingerit, Inc., New York, N. Y. "Klingerit."
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lion—James Walker & Co., Ltd., New York, N. Y
Lone Rock—The Wm. L. McLellan Co., Bridgeport, Conn.
Meruco—Mechanical Rubber Co., The, Cleveland, O.
Metallo Gasket Co., New Brunswick, N. J. "Stanite."
New Red—Garrison-Heiland Corp., New York.
Ovalhole—Hollow Center Packing Co., Cleveland, O.
Ferodo & Asbestos, Inc., New Brunswick, N. J. (Trade names—Permanite, Super-Permanite.)
Quaker City Rubber Co., Philadelphia, Pa.
Raybestos—Raybestos Co., The, Bridgeport, Conn.
Red Wing—Goodyear Tire & Rubber Co., Akron, O.
Republic Rubber Co., The, Youngstown, O.
Rex—Crandall Packing Co., Palmyra, N. Y.
Royal-White—The Cincinnati Rubber Mfg. Co., Cincinnati, O.
Russo—A. W. Chesterton Co., Boston, Mass.
Sall Mountain Asbestos Mfg. Co., Chicago, Ill.
Shur Joint—Union Rubber & Asbestos Co., Trenton, N. J.
Square Deal—Huhn Mfg. Co., New York.
Standard—Standard Packings Co., Cleveland, O.
Sta-Tite—Imperial Packing Corp., New York, N. Y.
Steamtite—Federal Asbestos Co., Paterson, N. J.
Superheat—The B. F. Goodrich Co., Akron, O.
Superx—Chicago-Wilcox Mfg. Co., Chicago, Ill.
Thermoid Rubber Co., The, 248 Chestnut St., Philadelphia, Pa.
Tisafine—The Strong Machinery & Supply Co., New York.
Union Asbestos & Rubber Co., Chicago, Ill.
Urac—Union Rubber & Asbestos Co., Trenton, N. J.
Usaco—United States Asbestos Co., Manheim, Pa.
United States Asbestos Co. of Illinois, Chicago, Ill. "Duraco."
U. S. Indestructible Gasket Co., Brooklyn, N. Y. "Klingtite." "Sparktite."
Walker and Forbes, Inc., Mamaroneck, N. Y.
Western Packing & Supply Co., Chicago, Ill.

PACKING, SHEET, ASBESTOS AND RUBBER, METAL OR WIRE INSERTION.

Advance Packing & Supply Co., Chicago, Ill.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Chesterton, A. W., Co., Boston, Mass. "Metal-Asbesto," "Rubberbestos."
Cincinnati Rubber Mfg. Co., The, Cincinnati, O. (Trade names—Royal, Plymouth.)
Clinton Mfg. Co., Brooklyn, N. Y.
Combination—The Combination Rubber Mfg. Co., Bloomfield, N. J.
Consolidated—Consolidated Packing & Supply Co., New York, N. Y.
Dealers' Steam Packing Co., The, Palmyra, N. Y.

Donovan Packing & Rubber Co., Inc., Philadelphia, Pa.
Durobestos—Albion Mfg. Co., Seattle, Wash.
Eagleine—Eagle Oil & Supply Co., Boston, Mass.
G-P—Gutta Percha & Rubber Mfg. Co., New York.
G. W. K.—Geo. W. Knowlton Rubber Co., Boston, Mass.
General Asbestos & Rubber Co., Charleston, S. C. (Trade names—Calibestos, Garcobestos, Petrobestos, Semibronze.)
Goodyearite—The Goodyear Tire & Rubber Co., Akron, Ohio.
Gould's—Gould Packing Co., East Cambridge, Mass.
Hi Degree—Metric Packing Div. of The Hewitt Rubber Co., Buffalo, N. Y.
Hollow Center Packing Co., Cleveland, O.
Janos Asbestos Co., New York, N. Y. "Janos."
Jenarco—Jenkins Bros., New York, N. Y.
Johns-Manville Corporation, New York, N. Y. "J.-M. Sergelite," "J.-M. Service."
Mechanical Rubber Co., The, Cleveland, Ohio.
New York Belting & Packing Co., New York, N. Y. "Asbestos-Metallic," "Firo," "Salamanda."
Perry—La Favorite Rubber Mfg. Co., Paterson, N. J.
Petrolite—The Darcoid Company, New York, N. Y.
Regal—Quaker City Rubber Co., Philadelphia, Pa.
"Square Deal"—Huhn Mfg. Co., New York, N. Y.
Standard Packings Co., Cleveland, O. "Standard."
Union Asbestos & Rubber Co., Chicago, Ill.
Union Rubber & Asbestos Co., Trenton, N. J.
United States Rubber Co., New York, N. Y.
Walker, James, & Co., Ltd., New York, N. Y.
Western Packing & Supply Co., Chicago, Ill.

PACKING, SHEET, FIBRE.
(For Superheated Steam.)

A-B-C—American Brake Lining Co., Sellersville, Pa.
Advance Packing & Supply Co., Chicago, Ill.
Americanite—American Steam Packing Co., Boston, Mass.
Belmont Packing & Rubber Co., Philadelphia, Pa. "Petrola."
Clinton Mfg. Co., Brooklyn, N. Y.
Donovan Packing & Rubber Co., Inc., Philadelphia, Pa.
Durabla Mfg. Co., New York, N. Y.
Endura Mfg. Co., Philadelphia, Pa.
Eureka Packing Co., Sales Dept., New York, N. Y.
Hollow Center Packing Co., Cleveland, Ohio.
Hudson 600—Hudson Mechanical Rubber Co., New York, N. Y.
Marvoid, Niagratite—U. S. Indestructible Gasket Co., Brooklyn, N. Y.
Meruco—Mechanical Rubber Co., The, New York, N. Y.
Sandow, Wampus—The Cincinnati Rubber Mfg. Co., Cincinnati, O.
Union Asbestos & Rubber Co., Chicago, Ill.
United States Rubber Co., New York, N. Y.
Vello—The Gasket Supply Co., Philadelphia, Pa.
Vellumoid—The Vellumoid Co., Boston, Mass.
Vulcabeston—Johns-Pratt Co., Hartford, Conn.
Western Packing & Supply Co., Chicago, Ill.

PACKING, SHEET, OIL PROOF.

Buffalo Belting & Weaving Co., Buffalo, N. Y.
Cleo—The Mechanical Rubber Co., Cleveland, Ohio.
United States Rubber Co., New York, N. Y.
Western Packing & Supply Co., Chicago, Ill.

PACKING SHEET, RUBBER.

A.C.L.—Western Rubber Co., Goshen, Ind.
A-1, Diablo—Pioneer Rubber Mills, San Francisco, Cal.
Acme—The Acme Rubber Mfg. Co., Trenton, N. J.
Advance—Advance Packing & Supply Co., Chicago, Ill.
Advance, Oleite—Consolidated Rubber Co., Trenton, N. J.
Akron—The B. F. Goodrich Co., Akron, O.
Albion—Albion Mfg. Co., Seattle, Wash.
Aurora—General Asbestos & Rubber Co., Charleston, S. C.
Belmont Packing & Rubber Co., Philadelphia, Pa.
Black-Bestos—Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Black Squadron—Cancos Mfg. Co., Philadelphia, Pa.
Blue Diamond—The Combination Rubber Co., Bloomfield, N. J.
Bluestone—Gutta Percha & Rubber Mfg. Co., New York, N. Y.
Buffalo Weaving & Belting Co., Buffalo, N. Y.
bridge, Mass.
Bull Dog—Boston Woven Hose & Rubber Co., Cambridge, Mass.
Capitol—Acme Rubber Mfg. Co., The, Trenton, N. J.
Cardinal—Manhattan Rubber Mfg. Co., Passaic, N. J.
C.B.S.—Western Rubber Co., Goshen, Ind.
Century—The Pennsylvania Rubber Co., Jeannette, Pa.
Chesterton Co., A. W., Boston, Mass. "Redbestos."
Cincinnati Gasket & Packing Co., Cincinnati, O. (Trade names—Black Velvet, No-Leak, Grapho, Red Velvet, Servo-Grapho.)
Cincinnati Rubber Mfg. Co., The, Cincinnati, O. (Trade names—Losant, Norka, Old Crow, Sandow.)
Clearmont—Hudson Mechanical Rubber Co., New York.
Clinton Mfg. Co., Brooklyn, N. Y.
Consolidated Packing & Spply Co., New York, N. Y. "Adamite," "Consolidated," "O. P."
Continental—Wise & Bailey, Philadelphia, Pa.
Supply Co., New York, N. Y.
C O P Dichtungsgummi—The Strong Machinery &
C.O.S.—Western Rubber Co., Goshen, Ind.
Crucible—Union Rubber & Asbestos Co., Trenton, N. J.
Darcoid—The Darcoid Company, New York, N. Y.
Dealers' Steam Packing Co., The, Palmyra, N. Y.
Defender—Woven Steel Hose & Rubber Co., Trenton, N. J.
Delhi—The Manhattan Rubber Mfg. Co., Passaic, N. J.
Diamond—W. D. Allen Mfg. Co., Chicago, Ill.
Diamond Rubber Co., Inc., The, Akron, O. (Trade names—Defiance, Elbon, Indian Red, Silver Leaf, Volunteer.)
Donovan Packing & Rubber Co., Inc., Philadelphia, Pa.
Eagleine—Eagle Oil & Supply Co., Boston, Mass.
Elkhart Rubber Works, Elkhart, Ind.
Empire Tire & Rubber Corp., Trenton, N. J. (Trade names—Defiance, Empire, Hero, Perfect.)
Enterprise—Wise & Bailey, Philadelphia, Pa.
Essex—Essex Rubber Co., Trenton, N. J.
Eureka—Eureka Packing Co., Sales Dept., New York.
Fibo—Asbestos Fibre Spinning Co., North Wales, Pa.
Franklin—Wise & Bailey, Philadelphia, Pa.
Garlock Packing Co., The, Palmyra, N. Y. "Garlock."
Garrison-Heiland Corp., New York, N. Y.
Genesee—Consolidated Rubber Co., Trenton, N. J.
Gibraltar—New Jersey Asbestos Co., New York, N. Y.
Globe Rubber & Tire Co., Inc., Trenton, N. J.
Goodyearite—Goodyear Tire & Rubber Co., Arkon, O.
Gould's—The Gould Packing Co., East Cambridge, Mass.
G. W. K.—Geo. W. Knowlton Rubber Co., Boston.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hewitt Black, Oriole—Hewitt Rubber Co., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J. "N. B. O." "Red Rose," "Sterling."
Hopaco—Hollow Center Packing Co., Cleveland, O.
Hudson—Hudson Mechanical Rubber Co., New York.
Indestructible—New York Belting & Packing Co., Ltd., New York, N. Y.
I. X. L.—Chas. Nuhring & Bro., Cincinnati, O.
Janos—Janos Asbestos Co., New York, N. Y.
Jenarco—Jenkins Bros., New York, N. Y.
Jenkins 96—Jenkins Bros., New York, N. Y.
Johns-Manville Corporation, New York, N. Y. "Vulcabeston."
Johns-Pratt Co., The, Hartford, Conn. "Vulcabeston."
Johnson, Henry, Co., Inc., The, Jersey City, N. J. "Alligator," "Black Jack," "Heat Proof," "Phoenix."
Karbonite—New York Belting & Packing Co., Ltd., New York, N. Y.
Kymol—Crandall Packing Co., Palmyra, N. Y.
La Favorite Rubber Mfg. Co., Paterson, N. J. "Perry."
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Magnolia—Jenkins Bros., New York, N. Y.
Maron—J. W. Buckley Rubber Co., New York, N. Y.
Mascot—Consolidated Rubber Co., Trenton, N. J.
Mechanical Rubber Co., The, Cleveland, Ohio. (Trade names—Cleo, Hyperion, Paxol.)
Mineral Rubber Products Co., The, Moline, Ill.
New York Rubber Corporation, New York, N. Y.
Nycord—The New York Cordage Co., New York, N. Y.
Oilite—Jenkins Bros., New York, N. Y.
Omega—Buffalo Weaving & Belting Co., Buffalo, N. Y.
Paxtite—Pacific Coast Rubber & Sup. Co., San Francisco, Cal.
Perfection—A. W. Chesterton Co., Boston, Mass.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Pyramid—Cancos Mfg. Co., Philadelphia, Pa.
Pyramid—Gutta Percha & Rubber Mfg. Co., New York.
Quaker City Rubber Co., Philadelphia, Pa. (Trade names—Delta, Ebonite, Kaloric, Skihi.)
Rakco—Robt. A. Keasbey Co., New York, N. Y.
Red Bird—Union Rubber & Asbestos Co., Trenton, N. J.
Redbreast—Mercer Rubber Co., Hamilton Square, N. J.
Red Jacket, Special Red—Gutta Percha & Rubber Mfg. Co., New York, N. Y.
Red Rover—Wise & Bailey, Philadelphia, Pa.
Red Sheet—Standard Packings Co., Cleveland, Ohio.

Reindeer—The Pennsylvania Rubber Co., Jeannette, Pa.
Republic Rubber Co., The, Youngstown, O. "Chariot," "Ebona," "Invader," "Tower."
Ridgewood—Gutta Percha & Rubber Mfg. Co., New York.
Rivalate Superheat—The Strong Machinery & Supply Co., New York, N. Y.
Royal—Consolidated Rubber Co., Trenton, N. J.
Ruby—New York Belting & Packing Co., Ltd., New York, N. Y.
Runic—Consolidated Rubber Co., Trenton, N. J.
Russo—A. W. Chesterton Co., Boston, Mass.
Salisbury, W. H., & Co., Inc., Chicago, Ill. (Trade names—Congo, El Rey, Royal White, Salisbury's Red.)
Schacht Rubber Mfg. Co., **Huntington, Ind.**
Semibronze—General Asbestos & Rubber Co., **Charleston, S. C.**
Sovereign—The Wm. L. McLellan Co., Bridgeport, Conn.
Special Red—New York Belting & Packing Co., New York.
Special Red—The Pennsylvania Rubber Co., Jeannette, Pa.
Standard—Standard Packings Co., Cleveland, O.
Star Oil Proof—Consolidated Rubber Co., Trenton.
Strong's—The Strong Machinery & Supply Co., New York, N. Y.
Superheat—The Strong Machinery & Supply Co., New York, N. Y.
Superior—Consolidated Rubber Co., Trenton, N. J
Triple Sheet—Gutta Percha & Rubber Mfg. Co., New York.
Union Asbestos & Rubber Co., Chicago, Ill.
United States Rubber Co., New York, N. Y.
Viruco—The Victor Rubber Co., Springfield, O.
Voorhees Rubber Mfg. Co., Jersey City, N. J. "Corona," "Long Life," "Nubian," "Power," "Sentinel."
Wallabout—Gutta Percha & Rubber Mfg. Co., New York.
Western Packing & Supply Co., Chicago, Ill.
White Star—The B. F. Goodrich Co., Akron, O.
Whitehead Bros. Rubber Co., Trenton, N. J.

PACKING, SHEET, RUBBER, CLOTH INSERTION.

Alabama—Empire Tire & Rubber Corp., Trenton N. J.
Buffalo Weaving & Belting Co., Buffalo, N. Y.
Clinton Mfg. Co., Brooklyn, N. Y.
Consolidated Packing & Supply Co., New York, N. Y. "Consolidated."
Dealers' Steam Packing Co., The, Palmyra, N. Y.
Diamond Rubber Co., Inc., The, Akron, Ohio. Trade names—Clipper, Gulf, Indian Red.
Donovan Packing & Rubber Co., Inc., Philadelphia, Pa.
Equality—The Acme Rubber Mfg. Co., Trenton, N. J
Favorite—The Acme Rubber Mfg. Co., Trenton, N. J
General Asbestos & Rubber Co., Charleston, S. C.
Globe Rubber & Tire Co., Inc., Trenton, N. J.
Gould's—Gould Packing Co., East Cambridge, Mass
Gutta Percha & Rubber Mfg. Co., **New York, N. Y. (Trade names—G-P, Pyramid, Ridgewood, Wallabout.)**
Hewitt Rubber Co., Buffalo, N. Y.
Home Rubber Co., Trenton, N. J.
Hudson—Hudson Mechanical Rubber Co., New York.
Indestructene—The Combination Rubber Mfg. Co., Bloomfield, N. J.
La Favorite Rubber Mfg. Co., Paterson, N. J. "Perry," "Itsago."
Mechanical Rubber Co., The, Cleveland, Ohio. "Cuyahoga."
Native—Pioneer Rubber Mills, San Francisco, Cal.
New York Belting & Packing Co., **New York, N. Y.**
Norwood—The Cincinnati Rubber Mfg. Co., Cincinnati, O.
Quaker City Rubber Co., **Philadelphia.** (Trade names—Delta, Kaloric, Skihi).
Red Bird—Union Rubber & Asbestos Co., Trenton, N. J.
Republic Rubber Co., The, Youngstown, O.
Salisbury, W. H., & Co., Inc., Chicago, Ill. (Trade names—Heva, Nemo, Special, Viking.)
Standard—Standard Packings Co., Cleveland, O.
Union Asbestos & Rubber Co., Chicago, Ill.
United States Rubber Co., New York, N. Y.
Wabron-Vena—J. W. Buckley Rubber Co., New York N. Y
Western Packing & Supply Co., Chicago, Ill.
Whitehead Bros. Rubber Co., The, Trenton, N. J.

PACKING, SLIP JOINT.

The Martell Packings Co., Elyria, O.
Western Packing & Supply Co., Chicago, Ill.

PACKING, SOAPSTONE.

Belmont Packing & Rubber Co., Philadelphia, Pa.
Donovan Packing & Rubber Co., Inc., Philadelphia, Pa.
Miller's—Silver Lake Co., Newtonville, Mass.
Western Packing & Supply Co., Chicago, Ill.
Wise & Bailey, Philadelphia, Pa.

PACKING, THROTTLE.

Belmont Packing & Rubber Co., Philadelphia, Pa.
B. & P.—New York Belting & Packing Co., New York
Consolidated—Consolidated Packing & Supply Co., New York.
Dealers' Steam Packing Co., **The, Palmyra, N. Y**
Eureka Packing Co., Sales Dept., New York, N. Y.
France Packing Co., The, Philadelphia, Pa.
Gasco—Gasket Supply Co., Philadelphia, Pa.
Gould's—Gould Packing Co., East Cambridge, Mass
John Crane—Crane Packing Co., Chicago, Ill.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Marco—The Mechanical Rubber Co., Cleveland, Ohio.
Metric Packing Div. of The Hewitt Rubber Co., Buffalo, N. Y.
New York Belting & Packing Co., New York, N. Y. "Cobbs."
Semibronze, Hecla, Dixie—General Asbestos & Rubber Co., Charleston, S. C.
Standard—Standard Packings Co., Cleveland, O.
Union Asbestos & Rubber Co., Chicago, Ill.
United States Rubber Co., New York, N. Y
Western Packing & Supply Co., Chicago, Ill.
Wise & Bailey, Philadelphia, Pa.

PACKING, VALVE STEM.

Advance Packing & Supply Co., Chicago, Ill.
Algco—Auburn Leather Goods Co., Hartford, Conn.
Asbestos Fibre Spinning Co., North Wales, Pa.
Argus Asbestos Co., Inc., Port Chester, N. Y.
Bestalline—Advance Packing & Supply Co., Chicago, Ill.
Black Squadron—Cancos Mfg. Co., Philadelphia, Pa.
Blue Streak—Goodyear Tire & Rubber Co., Akron, O.
BrookBest—Braiding & Packing Works of America, Inc., Brooklyn, N. Y.
Canfield, H. O., Co., Bridgeport, Conn. "Canfield."
Chicago Engineer Supply Co., Chicago, Ill. "Cesco."
Cobb, Crocoite, Graphon, B. & P.—New York Belting & Packing Co., New York, N. Y.
Clinton—Clinton Mfg. Co., Brooklyn, N. Y.
Consolidated Packing & Supply Co., New York, N. Y. "Alagestos."
Crandall Packing Co., Palmyra, N. Y. "Crandall's Rex."
Diamond Rubber Co., Inc., The, Akron, O.
Dominion—The Darcoid Company, New York, N. Y.
Donovan Packing & Rubber Co., Inc., Philadelphia, Pa.
Durobestos—Albion Mfg. Co., Seattle, Wash.
Econo—Goetze Gasket & Packing Co., New Brunswick, N. J.
Eureka Packing Co., Sales Dept., New York, N. Y.
Fieldco—R. B. Field & Co., Worcester, Mass.
France Packing Co., The, Philadelphia, Pa.
Gasco—Gasket Supply Co., Philadelphia, Pa.
General Asbestos & Rubber Co., Charleston, S. C. "Perfect."
Globe—Hayden Supply Co., Grand Rapids, Mich.
Gould's—The Gould Packing Co., East Cambridge, Mass.
Green, Tweed & Co., New York, N. Y. "Palmetto."
Hi-Presh—W. H. Salisbury & Co., Inc., Chicago, Ill.
Holmes Metallic Packing Co., Wilkesbarre, Pa. "Holmes."
Hudson Mechanical Rubber Co., New York, N. Y.
Jerome-Edwards Metallic Packing Co., Chicago.
John Crane, Crane Packing Co., Chicago, Ill.
Johns-Manville Corporation, New York, N. Y. "Canadax," "J-M Jewett Ring," "J-M Universal," "Mogul."
Johnson, Henry, Co., Inc., **The, Jersey City, N. J. "Phoenix."**
La Favorite Rubber Mfg. Co., Paterson, N. J.
Linear Packing & Rubber Co., Inc., Philadelphia, Pa.
Lone Rock—The Wm. L. McLellan Co., Bridgeport, Conn.
Lubron Co., The, Everett, Mass. "Lubron."
Marco—The Mechanical Rubber Co., Cleveland, Ohio.
Martell Packings Co., Elyria, O.
Metric Packing Div. of The Hewitt Rubber Co., Buffalo, N. Y.
Micobestos—Advance Packing & Supply Co., Chicago.
Old Crow—Cincinnati Rubber Mfg. Co., Cincinnati, O.
Ovalhole—Hollow Center Packing Co., Cleveland, O.
Paxton-Mitchell Co., The, Omaha, Neb.
P.P.P—Quaker City Rubber Co., Philadelphia, Pa.
Red Bird—Union Rubber & Asbestos Co., Trenton, N. J.
Republic Rubber Co., The, Youngstown, O.
Sherwood Mfg. Co., Buffalo, N. Y.
Standard—Standard Packings Co., Cleveland, O.
Standard—Northern Metallic Packing Co., St. Paul, Minn.
Steamtite—Federal Asbestos Co., Paterson, N. J.
Stempack—Goetze, Gasket & Packing Co., New Brunswick, N. J.
Stemtite—Metric Packing Div. of The Hewitt Rubber Co., Buffalo, N. Y.

Target—Chicago-Wilcox Mfg. Co., Chicago, Ill.
Turxo—New York Belting & Packing Co., New York.
Union Asbestos & Rubber Co., Chicago, Ill.
Union Packing & Rubber Co., Inc., New York, N. Y.
Usaco—United States Asbestos Co., Manheim, Pa.
United States Asbestos Co. of Illinois, Chicago, Ill. "Duraco."
United States Rubber Co., New York, N. Y.
Valbestine—General Asbestos & Rubber Co., Charleston, S. C.
Valvolite—Quaker City Rubber Co., Philadelphia, Pa.
Vulcabeston—Johns-Pratt Co., Hartford, Conn.
Western Packing & Supply Co., Chicago, Ill.
Wise & Bailey, Philadelphia, Pa.

PADLOCKS.

Frain, E. T., Lock Co., The, Lancaster, Pa.
Four-Way—Four-Way Lock Co., Cleveland, O.
Eagle Lock Co., Terryville, Conn.
Miller Lock Co., Philadelphia, Pa.
Russell & Erwin Mfg. Co., New York, N. Y.
Sargent & Co., New Haven, Conn.
Yale & Towne Mfg. Co., Stamford, Conn.

PADS, LUBRICATING, FELT.

Algco—Auburn Leather Goods Co., Hartford, Conn.
Booth—The Booth Felt Co., Brooklyn, N. Y.
Brawley, T. R., Brooklyn, N. Y.
Fieldco—R. B. Field & Co., Worcester, Mass.
Hoffeld & Co., R., Buffalo, N. Y.

PAILS, CONTRACTORS' AND FOUNDRY.

Iron Horse—Rochester Can Co., Rochester, N. Y.

PAILS, FACTORY, FIBRE.

Fibrotta—Cordley & Hayes, New York, N. Y.

PAILS, FIRE.

(See "Buckets and Pails, Fire")

PAINT, ALUMINUM.

Aluminum Company of America, Pittsburgh, Pa.

PAINT FOR BOILER SETTINGS, ACID, AIR AND WATER PROOF.

American Lastite Co., Chicago, Ill.
Cokalite—Cokal Stoker Corp., Chicago, Ill.
Genasco—The Barber Asphalt Co., Philadelphia, Pa.
Lucas, John & Co., Inc., Philadelphia, Pa.
Quigley Furnace Specialties Company, Inc., New York, N. Y.
Rodine—American Chemical Paint Co., Ambler, Pa.
Stone & Tar Products Co., Brooklyn, N. Y.

PAINT, MILL WHITE, FACTORY INTERIOR.

Apex—Acme Asbestos Covering & Supply Co., Chicago.
Barreled Sunlight—United States Gutta Percha Paint Co., Providence, R. I.
Blue Ribbon White—The Truscon Laboratories, Detroit, Mich.
Cheesman-Elliott Company, Brooklyn, N. Y.
Connors, W., Paint Mfg. Co., The, Troy, N. Y. "Florence."
Elastikote—Tropical Paint & Oil Co., Cleveland, O.
Federal Process Co., Cleveland, Ohio.
Flat Wall Unicoat—Rinald Bros. Paint Works, Inc., Philadelphia, Pa.
Frazer—Frazer Paint Co., Detroit, Mich.
Goheen's Mill White—Goheen Corp. of N. J., Newark, N. J.
Hampden—Hampden Paint & Chemical Co., Springfield, Mass.
Johns-Manville Corporation, New York, N. Y.
Liberty—Carter Paint Co., Liberty, Ind.
Lucas Mill White—John Lucas & Co., Inc., Philadelphia, Pa.
Mordalite—Garland Co., Cleveland, O.
More Lyte—Arlington Mfg. Co., The, Canton, O.
Nice—Eugene E. Nice Co., Philadelphia, Pa.
Patton's Alba-Lux—Pittsburgh Plate Glass Co., Patton-Pitcairn Div., Newark, N. J.
Pecora Paint Co., Philadelphia, Pa.
Ruberoid—The Ruberoid Co., New York, N. Y.
Sanatone—Thomson Wood Finishing Co., Philadelphia.
Staizon—Baker Paint & Varnish Co., Jersey City, N. J.
Standard Chemical Corp., Kalamazoo, Mich.
Vertex—J. C. Whitlam Mfg. Co., Wadsworth, O.
Vorcolite—The Vortex Mfg. Co., Cleveland, O.

PAINT, GRAPHITE AND ROOFING.

(See also "Cement, Roofing.")

Acme White Lead & Color Works, Detroit, Mich.
American Seal—The Wm. Connors Paint Mfg. Co., Troy, N. Y.
American Lastite Co., Chicago, Ill.
Anchor, Crystal—Warren Chemical Div., The Barrett Co., New York.
Arlington Mfg. Co., Canton, Ohio.
Carey, Philip, Mfg. Co., The, Cincinnati, O.
Cheesman-Elliott Company, Brooklyn, N. Y.
Des Moines Elaterite—The Elaterite Paint & Mfg. Co., Des Moines, Iowa.
Dixon Crucible Co., Joseph, Jersey City, N. J.
Federal—Federal Graphite Mills, Cleveland, O.
Flex-A-Tile—The Richardson Co., Lockland, Ohio.
Flintkote, Rex, Stalwart—The Flintkote Co., Boston, Mass.
Garrett, C. S., & Son Co., Philadelphia, Pa. "Marley Pyramid," "Pyramid."
Genasco—The Barber Asphalt Co., Philadelphia, Pa.
Heppes-Nelson Roofing Co., Chicago, Ill.
Hetzel's—Estate of J. G. Hetzel, Newark, N. J.
Kelly—Kelly Graphite Mills, New York, N. Y.
Langon—Polygon Products Co., Boston, Mass.
Liberty—Carter Paint Co., Liberty, Ind.
Lucas, John, & Co., Inc., Philadelphia, Pa.
Pecora—Pecora Paint Co., Philadelphia, Pa.
Roofkoter—Tropical Paint & Oil Co., Cleveland, O.
Roof Shield—The Truscon Laboratories, Detroit, Mich.
Rooftite—American Lastite Co., Chicago, Ill.
Sal Mo—Sall Mountain Co., Chicago, Ill.
Stormtight—L. Sonneborn Sons, Inc., New York, N. Y.
Superflake—Superior Flake Graphite Co., Chicago, Ill.
U. S. G.—The U. S. Graphite Co., Saginaw, Mich.
Whitlam, J. C., Mfg. Co., Wadsworth, O.
World Neverleak—The World Refining Co., Easton, Pa.

PAINT, HOT SURFACE.

Acme—The Acme Refining Co., Cleveland, O.
Cheesman-Elliott Company, Brooklyn, N. Y.
Des Moines Elaterite—Elaterite Paint & Mfg. Co., Des Moines, Iowa.
Federal—Federal Process Co., Cleveland, O.
Graphilatum—Klein Mfg. Co., Cleveland, O.
National Roofing and Paint Co., Tonawanda, N. Y.
Nitrose—The Nitrose Co., Peoria, Ill.
Perokote—Perolin Co. of America, Chicago, Ill.
Pyrolion—The Garland Co., Cleveland, O.
Rex Superheat—The Flintkote Co., Boston, Mass.
Standard—Standard Chemical Corp., Kalamazoo, Mich.
Thermokote—Goheen Corp. of N. J., Newark, N. J.
Thomson Wood Finishing Co., Philadelphia, Pa.
Tropolite—Tropical Paint & Oil Co., Cleveland, O.
Viscolac—E. I. Du Pont de Nemours & Co., Wilmington, Del.

PAINT, FOR IRON WORK, BOILERS, MACHINERY, ETC.

Acme—Acme White Lead & Color Works, Detroit, Mich.
Albion—Albion Mfg. Co., Seattle, Wash.
American Lastite Co., Chicago, Ill.
American Seal—The Wm. Connors Paint Mfg. Co., Troy, N. Y.
Arlington Mfg. Co., Canton, Ohio. "Carbonelastic Coating."
Bitumastic—Wailes-Dove-Hermiston Corp., Garwood, N. J.
Cheesman-Elliott Company, Brooklyn, N. Y.
Du Pont, E. I., de Nemours & Co., Chem. Prod. Div., Parlin, N. J. (Trade names—Carpo, Viscolac.)
Des Moines Elaterite—The Elaterite Paint & Mfg. Co., Des Moines, Ia.
Erie Metallic—Tropical Paint & Oil Co., The, Cleveland, Ohio.
Etna—Walters Mfg. Co., Pittsburgh, Pa.
Eureka—The Otley Paint Mfg. Co., Chicago, Ill.
Everjet Elastic, Monitor Metal—Barrett Mfg. Co., New York, N. Y.
Frazer Paint Co., Detroit, Mich. "Frazer."
Genasco—Barber Asphalt Co., Philadelphia, Pa.
General Electric Co., Bridgeport, Conn. "G-E No. 880."
Goheen Corporation of N. J., Newark, N. J. "Carbonizing Coating," "Galvanum."
Graphilatum—The Klein Mfg. Co., Cleveland, O.
Great Western Oil Co., The, Cleveland, O.
Heppes-Nelson Roofing Co., The, Chicago, Ill. "Flexatile Fibrated."
Hetzel's—Estate of J. G. Hetzel, Newark, N. J.
Iron Hide—Pittsburgh Plate Glass Co., Patton-Pitcairn Div., Newark, N. J.
Ironsides—The Ironsides Co., Columbus, O.
Johns-Manville Corporation, New York, N. Y. "J-M Boiler."
Liberty—Carter Paint Co., Liberty, Ind.
Long Life—The Klein Mfg. Co., Cleveland, O.
Lucas, John, & Co., Inc., Philadelphia, Pa.
Nice, Eugene E., Co., Philadelphia, Pa. "Nice."
Nitrose—The Nitrose Co., Peoria, Ill.
No Rust—Frost Paint & Oil Co., Minneapolis, Minn.
Pecora—Pecora Paint Co., Philadelphia, Pa.
Rex Preservative—The Flintkote Co., Boston, Mass.
Rice's—United States Gutta Percha Paint Co., Providence, R. I.

Rustproof, Bessemer—Rinald Bros Paint Works, Inc., Philadelphia, Pa.
Solvay—Semet Solvay Co., Syracuse, N. Y. (machinery.)
Stone & Tar Products Co., Brooklyn, N. Y.
Stuckote—National Roofing Co., Tonawanda, N. Y.
Thompson Wood Finishing Co., Philadelphia, Pa. Trade names—Filler, M. R. Paint.)
Truscon, Bar-Ox—The Truscon Laboratories, Detroit, Mich.
Valdura—American Asphalt Paint Co., Chicago, Ill.
Walters—Walters Mfg. Co., Pittsburgh, Pa.
Wesco Products Co., Inc., The, Chicago, Ill.
Whitlam, J. C., Mfg. Co., Wadsworth, O. (Trade names—Durable, Old Standard, Spar.)
World Refining Co., Easton, Pa.
Zarex—Flintkote Mfg. Co., Boston, Mass.

PANS, ACID AND ANNEALING.

Columbiana Boiler Co., Columbiana, Ohio.
Mullins Body Corp., Stamping Dept. A, Salem, O.

PANS, DRIP.

Koven & Brother, L. O., Jersey City, N. J.
Lalance & Grosjean Mfg. Co., New York, N. Y.
Littleford Bros., Cincinnati, O.
Mullins Body Corp., Stamping Dept. A., Salem, O.
Progressive Metalware Corp., New York, N. Y.
Richmond Foundry & Mfg. Co., Richmond, Va.

PANS, DUST, FACTORY.

Dover Stamping & Mfg. Co., Cambridge, Mass.
Mullins Body Corp., Stamping Dept. A., Salem, O.

PANS, LATHE.

Biggs Boiler Works, The, East Akron, O.
Champion—Western Tool & Mfg. Co., Springfield, O.
Cleveland Wire Spring Co., Cleveland, O.
Kirk & Blum Mfg. Co., Cincinnati, O.
Liberty—Carter Paint Co., Liberty, Ind.
Littleford Bros., Cincinnati, O.
Lowe Bros. Co., Dayton, O.
Lyon Metallic Mfg. Co., Aurora, Ill. "Lyon."
Mullins Body Corp., Stamping Dept. A, Salem, O.
New Britain—New Britain Machine Co., The, New Britain, Conn.
Ohio Mfg. Co., The, Painesville, O.
Ot Steel—Angle Steel Stool Co., Plainwell, Mich.
Rex—The Flintkote Co., Boston, Mass.
Terrell's Equipment Co., Grand Rapids, Mich.

PANS, REFRIGERATOR.

Albrass Co., Inc., Coxsackie, N. Y.
Hilton Brass Foundry, Hilton, N. J.

PANS, SHOP AND ASSEMBLY.

Ekco—Edward Katzinger Co., Chicago, Ill.
Mullins Body Corp., Stamping Dept. A., Salem, O.
Powell—Powell Pressed Steel Co., Hubbard, O.

PANS, VACUUM.

American Copper & Brass Works, Cincinnati, Ohio.
Atlas Copper & Brass Mfg. Co., Chicago, Ill.
Badger & Sons Co., E. B., Boston, Mass.
Biggs Boiler Works, The, East Akron, O.
Buffalo Forge Co., Buffalo, N. Y.
Camden Copper Works, Inc., Camden, N. J.
Harris, Arthur, & Co., Chicago, Ill.
Holmberg, Chas., & Co., Chicago, Ill.
Improved Appliance Co., Brooklyn, N. Y.
Koven, L. O., & Bro., Jersey City, N. J.
Krenz, Oscar, Copper & Brass Works, Inc., The, San Francisco, Cal.
National Gauge Co., Brooklyn, N. Y.
Roturbo—Manistee Iron Works Co., Manistee, Mich.
Valley Iron Works, Williamsport, Pa.

PANTOGRAPHS.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.

PAPER, ASBESTOS.

Asbestos Products Co., Chicago, Ill.
Baltimore Roofing & Asbestos Mfg. Co., Asbestos, Md. "Bramco."
Brower, Charles R., & Co., Seattle, Wash.
Carey—Philip Carey Mfg. Co., Cincinnati, O.
Chicago Asbestos Mfg. Co., Chicago, Ill.
Crawford, L. M., Asbestos Co., Denver, Colo.
Dominion Asbestos and Rubber Corp., New York.
Eastern Asbestos Co., Providence, R. I.
Ehret Magnesia Mfg. Co., Valley Forge, Pa.
General Asbestos & Rubber Co., Charleston, S. C.
Johns-Manville Corp., New York, N. Y.
Keasbey Co., Robt. A., New York, N. Y.
K. & M.—Keasbey & Mattison Co., Ambler, Pa.
Montgomery Bros., Inc., Philadelphia, Pa.
National Asbestos Mfg. Co., Jersey City, N. J.
Richards Mfg. Co., Grand Rapids, Mich.
Sall Mountain Co., Chicago, Ill.
Union Rubber & Asbestos Co., Trenton, N. J.
Usaco—United States Asbestos Co., Manheim, Pa.
Watson, H. F., Co., Erie, Pa.
Western Asbestos & Mfg. Co., Denver, Colo.

PAPER, GASKET, TREATED

Adpasco—Advance Packing & Supply Co., Chicago, Ill.

PAPER, RECORDING INSTRUMENTS.

Middlesex Products Co., Boston, Mass.

PAPER AND CLOTH, SAND, EMERY, GARNET AND FLINT.

American Glue Co., Boston, Mass.
Armour Sand Paper Works, Chicago, Ill. (Emery, flint, garnet, alundum and crystolon paper, cloth and discs.) Trade names—Armour, Bull's Head, Crystolon, Rubwet.)
Baeder Adamson Company, Philadelphia, Pa.
Barton, H. H., & Son Co., Philadelphia, Pa.
Behr, Herman & Co., Inc., Brooklyn, N. Y. (Trade names—Adamant, Adamite, Brooklyn, Buffum, Carbicon, Closekote, Empire, Openkote, Ruby.)
Carbolox, Herculundum—U. S. Sand Paper Co., Williamsport, Pa.
Carborundum, Aloxite—The Carborundum Co., Niagara Falls, N. Y.
Crystal Bay, Superior Garnet, Three-M-ite, Tri-M-ite, Wetordry, Autowet, Imperial Flint, Three-M—Minnesota Mining & Mfg. Co., St. Paul, Minn.
Manning Abrasive Co., Inc., Troy, N. Y. (Trade names—Manning, Speed-grits, Waterproof Speed-grits, Garnet Waterproof.)
Minnesota Mining & Mfg. Co., St. Paul, Minn.
Standard Abrasive Co., Inc., Garfield, N. J.
Wausau Abrasive Co., Wausau, Wis. "Ruff Stuff."

PAPER, TOILET.

A. P. W. Paper Co., Albany, N. Y. (Trade names—A.P.W., Onliwon.)
No Waste—National Paper Products Co., Carthage, N. Y.
Sauquoit Toilet Paper Co., Inc., New Hartford, N. Y.
Scott Paper Co., Chester, Pa.

PARALLELS, PLANER.

Herlth—O. B. Herlth Mfg. Co., Hartford, Conn.
Simplex Tool Co., Woonsocket, R. I.
Starrett Co., The L. S., Athol, Mass.
Walker, O. S., & Co., Worcester, Mass.

PARTITIONS, STEEL, ROLLED OR PRESSED.

Lyon Metallic Mfg. Co., Aurora, Ill.

PARTITIONS, STEEL, TOILET.

(See "Stalls.")

PARTITIONS, WIRE, FACTORY.

Cyclone Fence Co., Waukegan, Ill. "Cyclone Red Tag."
Knapp—The Knapp Fence Co., Cleveland, O.
Tyler, The W. S., Co., Cleveland, O.

PAVERS, ROAD.

Atlas—Atlas Engineering Co., Milwaukee, Wis.
Lakewood Engineering Co., Cleveland, O.
Leach Company, The, Oshkosh, Wis.

PEDESTALS AND FOOT RESTS, RADIATOR.

Concord—Union Radiator Co., Johnstown, Pa.
Jennison Co., Fitchburg, Mass.
National Radiator Co., Johnstown, Pa.
U. S. Radiator Corp., Detroit, Mich. (Trade names—Capitol, Triton.)

PEGS, BELT, RAWHIDE.

(See "Pins, Belt Lacing")

Tilghman, T. H., & Sons, Salisbury, Md.

PINS OR PEGS, BELT LACING.

Chicago Rawhide Mfg. Co., Chicago, Ill.
Clipper Belt Lacer Co., Grand Rapids, Mich.
Detroit-Bakelite—Detroit Belt Lacer Co., Detroit, Mich.
Flexible Steel Lacing Co., Chicago, Ill.

PEGS, RUBBER HEAD.

Canfield Rubber Co., The, Bridgeport, Conn.

PICKERS, LOOM.

Bond, Charles Co., Philadelphia, Pa.
Graton & Knight Co., Worcester, Mass.
Greenville Belting Co., Greenville, S. C.
Jacobs—E. H. Jacobs Mfg. Co., Danielson, Conn.

PICKS, MATTOCKS AND GRUB HOES.

American Axe & Tool Co., Glassport, Pa.
American Shovel & Stamping Co., Lorain, O.
Beall Bros., Alton, Ill.
Collins Company, The, Collinsville, Conn.
Fulton Tool Works, Canal Fulton, O.
Hardsocg, Martin, Co., The, Pittsburgh, Pa.
Hubbard & Co., Pittsburgh, Pa.
Iron City Tool Works, Pittsburgh, Pa. "Iron City Star."
Klein-Logan Co., The, Pittsburg, Pa.
Leetonia Tool Co., The Leetonia, Ohio.
Quikwerk—The Warren Tool & Forge Co., Warren, Ohio.
Salem Tool Co., The, Salem, O.
Tyrone—Oliver Iron & Steel Corp., Pittsburgh, Pa.
Verona Tool Works, Pittsburg, Pa.
Vulcan Tool Mfg. Co., The, Quincy, Mass.
Warwood Tool Co., Wheeling, W. Va.
Wyoming Shovel Works, The, Wyoming, Pa. "Wyoming Red Edge."

PICKS, MILL AND BOILER.

Bradley's, G. W., Sons, Westport, Conn.
Heartley Machine, Variety Iron & Tool Works, Toledo, O.
Higgins, John C., Chicago, Ill.
Horseshoe—The Stanley Rule and Level Plant, Atha Dept., New Britain, Conn.
Hubbard & Co., Pittsburgh, Pa.
Iron City Star—Iron City Tool Wks., Pittsburgh, Pa.
Kern, O., Fleetwood, Pa.
Leetonia Tool Co., The, Leetonia, O.
Quikwerk—Warren Axe & Tool Co., Warren, Pa.

PIEZOMETERS, NOZZLE.

Clark, H. W., Co., Mattoon, Ill.

PILERS, BAG.

Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Link-Belt Co., Chicago, Ill., and Philadelphia, Pa.
Munson Mill Machinery Co., Inc., Utica, N. Y.

PILERS OR STACKERS.

(See "Elevators, Portable.")

PINCERS, BLACKSMITHS' AND CARPENTERS'.

Buffum Tool Co., Louisiana, Mo.
Champion-De Arment Tool Co., Meadville, Pa.
Dasco—Damascus Steel Products Co., Rockford, Ill.
Gray Iron Foundry Co., Reading, Pa.
Heller Bros Co., Newark, N. J.
Mechanics Tool Co., Rockford, Ill.
Milwaukee Tool & Forge Co., Milwaukee, Wis. "Larson."
Peck, Stow & Wilcox Co., Southington, Conn.
Perfect Handle, S.—The H. D. Smith & Co., Plantsville, Conn.
V & B—Vaughan & Bushnell Mfg. Co., Chicago, Ill

PINCH DOGS, PATTERNMAKERS'.

Johnson, Wm., Firm of, Newark, N. J.
Shanafelt Mfg. Co., The, Canton, O.

PINS, BENDING, PLUMBER'S.

Delaware—Otto Bernz Co., Inc., Newark, N. J.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Johnson, Wm., Firm of, Newark, N. J.
National Tool Co., New York, N. Y.
Smith, H. D., & Co., The, Plantsville, Conn.
Vichek Tool Co., The, Cleveland, O.
W. C. Carver Tool Works, Spring Valley, N. Y.
W. W.—Woodward-Wanger Co., Philadelphia, Pa.

PINS, COTTER.

(See "Cotters and Keys.")

PINS OR PLUGS, DRIFT, PLUMBERS'.

Always Reliable—Otto Bernz Co., Inc., Newark, N. J.
Anderson, W. H., Tool & Supply Co., Detroit, Mich.
Buffum Tool Co., Louisiana, Mo.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Duffy Manufacturing Co., Chicago, Ill.
Garrison-Helland Corp., New York, N. Y.
Hasco—H. A. Stiles & Co., Boston, Mass.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Johnson, Wm., Firm of, Newark, N. J.
Milwaukee Tool & Forge Co., Milwaukee, Wis.
National Tool Co., New York, N. Y.
Pittsburg Block & Mfg. Co., Pittsburg, Pa.
Sayre, L. A., Company, Newark, N. J.
The Stanley Rule and Level Plant, Atha Dept., New Britain, Conn. "Horseshoe."
Verona Tool Wks., Pittsburgh, Pa.
Vulcan—Vulcan Tool Mfg. Co., Quincy, Mass.
W. W.—Woodward-Wanger Co., Philadelphia, Pa.

PINS, PLUMBERS' TURN.

Bernz, Otto, Co., Newark, N. J.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Johnson, Wm., Firm of, Newark, N. J.
National Tool Co., New York, N. Y.
W. W.—Woodward-Wanger Co., Philadelphia, Pa.

PINS, TAPER.

American Steel Co., Ellwood City, Pa.
Chicago Nut Co., Chicago, Ill.
Chicago Screw Co., The, Chicago, Ill.
Detroit Screw Works, Detroit, Mich.
H. M. S.—Hartford Machine Screw Co., Hartford, Conn.
Handy Assortment—Heiz & Heiz, New York, N. Y.
Justrite Mfg. Co., Chicago, Ill.
Leard, Wm., Co., New Brighton, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass
Rochester Machine Screw Co., Rochester, N. Y.
Standard Gauge Steel Co., Beaver Falls, Pa.
Standard Tool Co., Cleveland, O.
St. Louis Screw Co., St. Louis, Mo.
Washburn Co., The, Wire Goods Co. Div., Worcester, Mass.
Western Automatic Machine Screw Co., The, Elyria, O
Worcester Machine Screw Co., Worcester, Mass.

PIPE THREADING AND CUTTING TOOLS.

(See "Cutters, Pipe," and "Stocks, Die.")

Armstrong Mfg. Co., Bridgeport, Conn.
Beaver Easy Worker—Borden Co., Warren, O.
Greenfield Tap & Die Corp., Greenfield, Mass.
Toledo Pipe Threading Machine Co., Toledo, O.
Walworth Company, Boston, Mass.

PIPE, BLACK.

National—National Tube Co., Pittsburgh, Pa.

PIPE, BRASS.

(See also "Tubing, Brass.")

Alpha—Chase Metal Works, Waterbury, Conn.
Anaconda—The American Brass Co., Waterbury, Conn.
American Tube Works, Boston, Mass.
Baltimore Tube Co., Baltimore, Md.
Coe Brass Mfg. Co., Torrington, Conn.
Crescent—Wheeler Condenser & Engineering Co., Carteret, N. J.
Dallas Brass & Copper Co., Chicago, Ill.
Grinnell Company, Providence, R. I.
Plumrite—Bridgeport Brass Co., Bridgeport, Conn.
Randolph-Clowes Co., The, Waterbury, Conn.
Rome Brass & Copper Co., Rome, N. Y.
Star—U. T. Hungerford Brass & Copper Co., New York, N. Y. (seamless).

PIPE, BRONZE.

Boyts-Porter Co., Connellsville, Pa.

PIPE & FITTINGS, CAST IRON, PRE-CALKED JOINT

McWane Cast Iron Pipe Co., Birmingham, Ala.

PIPE AND FITTINGS, CAST IRON, SOIL.

AFCO—Anniston Foundry Co., Anniston, Ala.
Alabama Pipe Co., Anniston, Ala.
Alabama Pipe & Foundry Co., Armiston, Ala.
American Foundry & Mfg. Co., St. Louis, Mo.
American Pipe & Flange Co., New York, N. Y.
Anniston Soil Pipe Co., Anniston, Ala.
Birmingham Machine & Foundry Co., Birmingham, Ala.
Central Foundry Co., New York, N. Y.
Chattanooga—The Casey-Hedges Co., Chattanooga, Tenn.
Charlotte Pipe & Foundry Co., Charlotte, N. C.
Chicago Foundry Co., Chicago, Ill.
Chicago Pipe Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Crown Pipe & Foundry Co., Jackson, O.
Diamond—A. Weiskittel & Son Co., Baltimore, Md.
Eastern Foundry Co., Boyertown, Pa.
Essex Foundry Co., Newark, N. J.
Fleck Bros. Co., Philadelphia, Pa.
Fuller Iron Works Co., The, Providence, R. I.
Glenn Mfg. Co., St. Charles, Ill.
Gulf States Pipe Corp., Anniston, Ala.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Hammond Iron Co., Birmingham, Ala.
Illinois Malleable Iron Co., Chicago, Ill.
Iron City Pipe & Foundry Co., Birmingham, Ala.
Johnson, J. D., Co., Philadelphia, Pa.
Krupp Foundry Co., Lansdale, Pa.
Materne, John P., Mfg. Co., St. Louis, Mo.
M. F. Co.—Medina Foundry Co., Medina, N. Y.
Mott, J. L., Iron Works, Trenton, N. J.
National Foundry Co. of New York, Brooklyn, N. Y.
Penn—East Penn Foundry Co., Macungie, Pa.
Reading Scale & Machine Co., Reading, Pa.
Reading Foundry & Supply Co., Reading, Pa.
Salem Brass & Iron Mfg. Co., Bridgeton, N. J.

Sanitary Company of America, Linfield, Pa.
Somerville Iron Works, Somerville, N. J.
Standard Cast Iron Pipe & Foundry Co., Atlanta, Ga.
Star Brand—Abendroth Brothers, Port Chester, N. Y.
Stringer Bros., Co., Inc., Chicago, Ill.
Union Sanitary Mfg. Co., Noblesville, Ind.
Utica—Chas. Millar & Sons Co., Utica, N. Y.
Walworth Alabama Co., Attalla, Ala.
Walworth Company, Boston, Mass.
Wetter, H., Mfg. Co., Memphis, Tenn.
Wood, R. D., & Co., Philadelphia, Pa.

PIPE AND FITTINGS, CAST IRON, WATER AND GAS.

American Cast Iron Pipe Co., Birmingham, Ala.
American Foundry & Mfg. Co., St. Louis, Mo.
American Pipe & Flange Co., New York, N. Y.
American Steel & Tube Co., Lorain, O.
B & S—Lynchburg Foundry Co., Lynchburg, Va.
Central Tube Co., Pittsburgh, Pa.
Clow & Sons, James B., Chicago, Ill.
Crane Co., Chicago, Ill.
Davis & Farnum Mfg. Co., Waltham, Mass.
Donaldson Iron Co., Emaus, Pa.
Fritz, Geo. J., Foundry & Machine Co., St. Louis, Mo.
General Pipe & Foundry Co., Atlanta, Ga.
Glamorgan Pipe Foundry Co., Lynchburg, Va.
Grinnell Company, Providence, R. I.
Hammond Iron Co., Birmingham, Ala.
Hershey Machine & Foundry Co., Manheim, Pa.
Kaltenthaler, H. J., Philadelphia, Pa.
Lancaster Iron Works, Inc., Lancaster, Pa.
Lynchburg Foundry Co., Lynchburg, Va.
McWane Cast Iron Pipe Co., Birmingham, Ala.
Millar & Son Co., Chas., Utica, N. Y.
National Cast Iron Pipe Co., Birmingham, Ala.
Riter-Conley Mfg. Co., Pittsburgh, Pa.
Scranton Pump Co., Scranton, Pa.
Simmons, John, Co., New York, N. Y.
Stacey—The Stacey Mfg. Co., Cincinnati, O.
Standard Cast Iron Pipe & Foundry Co., Atlanta, Ga.
Usicast—**United States Cast Iron Pipe & Foundry** Co., Burlington, N. J.
Universal—Central Foundry Co., New York, N. Y.
Walworth Company, Boston, Mass.
Warren Foundry & Pipe Co., New York, N. Y.
Waterous Fire Engine Works, St. Paul, Minn.
Wood & Co., R. D., Philadelphia, Pa.

PIPE, CAST IRON, WOOD LINED.

Boyts, Porter Co., Connellsville, Pa.

PIPE, CONDUCTOR.

Berger—Berger Bros. Co., Philadelphia, Pa.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.

PIPE CONDUIT, STEAM LINE.

Ric-Wil Company, The, Cleveland, Ohio.

PIPE, COPPER.

(See also "Tubing, Copper.")

American Tube Works, Boston, Mass.
Anaconda—The American Brass Co., Waterbury, Conn.
Ansonia Brass & Copper Co., Ansonia, Conn.
Baltimore Tube Co., Baltimore, Md.
Bridgeport Brass Co., Bridgeport, Conn.
North American Copper Co., New York, N. Y.
Rome Brass & Copper Co., Rome, N. Y.
Star—U. T. Hungerford Brass & Copper Co., New York, N. Y. (seamless).

PIPE, DRIVE.

Byers, A. M. Co., Pittsburgh, Pa.
National—National Tube Co., **Pittsburgh, Pa.**
Reading Iron Co., Reading, Pa.

PIPE & COUPLINGS, FIBRE.

(See "Fibre, Hard.")

PIPE, FLANGED, BENT AND STRAIGHT.

(See also "Coils and Bends.")

Crane Co., Chicago, Ill.
Ford & Kendig Co., Philadelphia, Pa.
Kellogg, M. W., & Co., New York, N. Y.
Mitchell & Co., Inc., W. K., Philadelphia, Pa.
National Cast Iron Pipe Co., Birmingham, Ala.
Pittsburgh Piping & Equipment Co., Pittsburgh, Pa.
Simmons Pipe Bending Works, Newark, N. J.
Walmanco—Walworth Company, Boston, Mass.
Whitlock Coil Pipe Co., Hartford, Conn.

PIPE, FLANGE AND FLEXIBLE JOINT.

Usicast—United States Cast Iron Pipe & Foundry Co., Burlington, N. J.
Wood, R. D., & Co., Philadelphia, Pa.

PIPES, GALVANIZED.

(See "Pipe, Steel," and "Pipe, Wrought Iron.")

Abendroth & Root Mfg. Co., Newburgh, N. Y.
American Spiral Pipe Works, Chicago, Ill.
Berger Bros. Co., Philadelphia, Pa.
Byers—A. M. Byers Co., Pittsburgh, Pa.
Central Tube Co., Pittsburgh, Pa.
Cohoes Rolling Mill Co., Cohoes, N. Y.
Crane Co., Chicago, Ill.
Harrisburg Pipe & Pipe Bending Co., Harrisburg, Pa.
Liberty Iron Pipe & Nipple Works, New York.
National—National Tube Co., Pittsburgh, Pa.
New York Blower Co., Chicago, Ill.
Youngstown—Youngstown Sheet & Tube Co., The, Youngstown, Ohio.

PIPE, HAMMER-WELDED.

American Spiral Pipe Co., Chicago, Ill.
National Tube Co., Pittsburgh, Pa.

PIPE, HARD RUBBER.

Diamond Rubber Co., The, Akron, O.
Ebonite—The Luzerne Rubber Co., Trenton, N. J.
Mechanical Rubber Co., The, Cleveland, Ohio.
United States Rubber Co., New York, N. Y.

PIPE, HYDRAULIC.

Abendroth & Root Mfg. Co., Newburgh, N. Y.
Byers—A. M. Byers Co., Pittsburgh, Pa.
Columbiana Boiler Co., Columbiana, Ohio.
Ford & Kendig Co., Philadelphia, Pa.
Hydraulic Press Mfg. Co., The, Columbus, O. (high pressure.) "H-P-M."
Kellogg Co., M. W., New York, N. Y.
Koven, L. O., & Bro., Jersey City, N. J.
National—National Tube Co., Pittsburgh, Pa.
Watson-Stillman Co., New York, N. Y.
Youngstown—Youngstown Sheet & Tube Co., The, Youngstown, O.

PIPE, LEAD.

American Lead Co., Pittsburgh, Pa.
Bailey-Farrell Mfg. Co., Pittsburgh, Pa.
Baker Lead Mfg. Co., Worcester, Mass.
Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Blatchford—E. W. Blatchford & Co., Chicago, Ill.
Bunker Hill Brand—Northwest Lead Co., Seattle, Wash.
Charleston Lead Works, The, Charleston, S. C.
Detroit Lead Pipe Co., Cincinnati, O.
Eagle-Picher Lead Co., Cincinnati, O.
Eagle Smelting & Refining Works, New York, N. Y.
Fleck Bros. Co., Philadelphia, Pa.
Gardiner Metal Co., Chicago, Ill.
Lissberger, Marks & Son, Inc., Long Island City, N. Y.
Millar & Son Co., Chas., Utica, N. Y.
National Lead Co., New York, N. Y.
North American Smelting Co., Philadelphia, Pa.
Omaha—Lawrence Shot & Lead Co., Omaha, Nebr
Raymond Lead Works, Chicago, Ill.
Robertson Lead Co., James, Baltimore, Md.
Rochester Lead Works, Rochester, N. Y.
Sandoval—Sandoval Zinc Co., Chicago, Ill.
Tillinghast Supply Co., The L. H., Providence, R. I
Union Smelting & Refining Co., Newark, N. J.
United Lead Co., New York, N. Y.
Wensley Metal Products Co., Denver, Colo.
Windsor Mfg. Co., Milwaukee, Wis.

PIPE, LEAD, TIN LINED.

Hoyt Metal Co., St. Louis, Mo.
Lead Lined Iron Pipe Co., Wakefield, Mass.
Lissberger, Marks, & Son, Inc., Long Island City, N. Y.
Raymond Lead Co., Chicago, Ill.
Rochester Lead Works, Rochester, N. Y.
United Lead Co., New York, N. Y.

PIPE AND FITTINGS, LEAD LINED.

Bunker Hill Brand—Northwest Lead Co., Seattle, Wash.
Lead Lined Iron Pipe Co., Wakefield, Mass.
Resisto Pipe & Valve Co., East Cambridge, Mass. "Resisto."
Superior Steel Pipe Co., Pittsburgh, Pa.
United Lined Tube & Valve Co., Boston, Mass.

PIPE, SPIRAL, LOCK SEAM.

Robertson Bros. Mfg. Co., Chicago, Ill.

PIPE, SPIRAL, RIVETED.

Abendroth & Root Mfg. Co., Newburgh, N. Y. "Root."
American Spiral Pipe Works, Chicago, Ill.
Naylor Spiral Pipe Co., Chicago, Ill.
Petroleum Iron Works, Sharon, Pa.
Stein's—John J. Stein, Brooklyn, N. Y.
Western Gas Construction Co., Ft. Wayne, Ind.

PIPE, SQUARE AND OBLONG.

Hunt—Rodney Hunt Machine Co., Orange, Mass.
Kirk & Blum Mfg. Co., Cincinnati, Ohio.
Koven & Bro., L. O., Jersey City, N. J.
Weller Mfg. Co., Chicago, Ill.

PIPE AND FITTINGS, STEAM JACKETED.

Barber Asphalt Co., Philadelphia, Pa.

PIPE, STEEL, WELDED.

Allegheny Steel Co., Pittsburgh, Pa.
Central Tube Co., Pittsburgh, Pa.
Columbiana Boiler Co., Columbiana, Ohio.
Cressman, N. G., Co., Philadelphia, Pa.
Foster, L. B., Co., Pittsburgh, Pa.
Fretz-Moon Tube Co., Butler, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Mark, Clayton, & Co., Chicago, Ill.
Monongahela Tube Co., Pittsburgh, Pa.
National—National Tube Co., Pittsburgh, Pa.
New York Central Iron Works Co., Inc., Hagerstown, Md.
Reading Iron Co., Reading, Pa.
Republic Iron & Steel Co., Youngstown, O.
Simmons Pipe Bending Works, Newark, N. J.
South Chester Tube Co., Chester, Pa.
Spang-Chalfant & Co., Pittsburgh, Pa.
Wheeling Steel Products Co., Wheeling, W. Va.
Youngstown Sheet & Tube Co., The, Youngstown, O. "Youngstown."

PIPE AND FITTINGS, STEEL AND WROUGHT, FLANGED.

American Pipe & Flange Co., New York, N. Y.
American Spiral Pipe Works, Chicago, Ill.
Cornell & Underhill, New York, N. Y.
Crane—Crane Co., Chicago, Ill.
Essex Foundry, Newark, N. J.
Fleck Bros. Co., Philadelphia, Pa.
Kaltenthaler, H. J., Philadelphia.
Keating, E. F., Co., New York.
Kellogg, M. W., & Co., New York, N. Y.
Lynchburg Foundry Co., Lynchburg, Va.
Mitchell, W. K. & Co., Philadelphia, Pa.
Simmons Co., John, New York, N. Y.
South Chester Tube Co., Chester, Pa.
Vulcan Steel & Tube Co., New York, N. Y.
Walworth Company, Boston, Mass.
Whitlock Coil Pipe Co., Hartford, Conn.
Wood, R. D., & Co., Philadelphia, Pa.
Youngstown Sheet & Tube Co., The, Youngstown, O.

PIPE, STRAIGHT RIVETED.

Abendroth & Root Mfg. Co., Newburgh, N. Y.
American Pipe & Flange Co., New York, N. Y.
Columbiana Boiler Co., Columbiana, O.
Davis & Farnum Mfg. Co., Waltham, Mass.
Fitz Water Wheel Co., Hanover, Pa.
Graver Corporation, East Chicago, Ind.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Koven & Bro., L. O., Jersey City, N. J.
Lancaster Iron Works, Inc., Lancaster, Pa.
Lappan Mfg. Co., The James, Pittsburgh, Pa.
Littleford Bros., Cincinnati, O.
Manistee Iron Works Co., Manistee, Mich.
Munroe, R., & Sons Mfg. Corp., Pittsburgh, Pa.
New York Central Iron Works Co., Hagerstown, Md.
Petroleum Iron Work Co., Sharon, Pa.
Riter-Conley Co., Pittsburgh, Pa.
Sacramento Pipe Works, Sacramento, Cal.
Smith & Son Co., Samuel, Paterson, N. J.
Stein's—John J. Stein, Brooklyn, N. Y.
Struthers-Wells Co., Warren, Pa.
Taylor's—American Spiral Pipe Works, Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Western Pipe & Steel Co., San Francisco, Cal.

PIPE, WROUGHT, COPPER LINED.

Materne, John P., Mfg. Co., St. Louis, Mo.

PIPE, WROUGHT IRON, WELDED.

American District Steam Co., North Tonawanda, N. Y.
Byers, A. M., Co., Pittsburgh, Pa. "Byers Genuine."
Central Tube Co., Pittsburgh, Pa.
Cohoes Rolling Mill Co., Cohoes, N. Y.
Cressman, N. G., Co., Philadelphia, Pa.
Foster, L. B., Co., Pittsburgh, Pa.
Grinnell Company, Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
Mitchell & Co., Inc., W. K., Philadelphia, Pa.
Oil Well Supply Co., Pittsburgh, Pa.
Reading Iron Co., Reading, Pa.
Simmons, John, Co., New York, Pa.
South Chester Tube Co., Chester, Pa.
Spang, Chalfant & Co., Inc., Pittsburgh, Pa.
Youngstown Sheet & Tube Co., The, Youngstown, O. "Youngstown."

PIPES, ARCH.

National—National Tube Co., Pittsburgh, Pa.
P. I. Co.—Parkesburg Iron Co., Parkesburg, Pa.

PIPES, BASIN AND BATH SUPPLY, ANNEALED.

Elgin Brass Co., New York, N. Y.
Little, M. S., Mfg. Co., Hartford, Conn.
Haydenville Co., The, Haydenville, Mass.
Mueller Co., Decatur, Ill.
Standard Brass Mfg. Co., Utica, N. Y.
Street & Kent Mfg. Co., Chicago, Ill.
Woodward-Wanger Co., Philadelphia, Pa.

PIPES, BATH, BASIN AND CLOSET, AND FURNACES.

Central Radiator Co., New York, N. Y.
Galva Heater Co., Galva, Ill.
Waterloo Register Co., Waterloo, Iowa.

PIPES, BATH, BASIN AND CLOSET, SUPPLY AND WASTE.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
American Brass Mfg. Co., The, Cleveland, O.
American Brass & Copper Co., The, New York, N. Y.
American Foundry & Mfg. Co., St. Louis, Mo.
American Sanitary Mfg. Co., Abingdon, Ill.
Ampinco—American Pin Co., Waterbury, Conn.
Bridgeport Brass Co., Bridgeport, Conn.
Clean Sweep—Detroit Sanitary Supply Co., Detroit, Mich.
Cochrane, J. A., Brass Mfg. Co., Cleveland, Ohio.
Crane Co., Chicago, Ill.
Dearborn Brass Co., Cedar Rapids, Ia.
Douglas, John, Co., The, Cincinnati, O.
Edwardsville Brass Works, Edwardsville, Ill.
Elgin Brass Co., New York, N. Y.
Emery, Wm. S., New York, N. Y.
Faultless—J. J. Ryan & Co., Chicago, Ill.
Federal Brass Mfg. Co., Cleveland, O.
Federal-Huber Co., Chicago, Ill.
Frost Mfg. Co., The, Kenosha, Wis.
Haydenville Co., Haydenville, Mass.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Ireland & Matthews Mfg. Co., Detroit, Mich.
Kent, F. C., Co., Irvington, N. J.
Little, M. S., Mfg. Co., The, Hartford, Conn.
Loyal Brass Co. Cleveland, O.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Mott J. L., Iron Works, Trenton, N. J.
Morency-Van Buren Mfg. Co., Sturgis, Mich.
Mueller Co., Decatur, Ill.
Peck Bros. & Co., The, New Haven, Conn.
Powers, J. P., Mfg. Co., Ossining, N. Y.
Rockford Brass Works, Rockford, Ill.
Rundle Mfg. Co., Milwaukee, Wis.
Salem Brass & Iron Mfg. Co., Bridgeton, N. J.
Schwander Brass Mfg. Co., St. Louis, Mo.
Schwab Bros. Co., New York, N. Y. (galv.).
Standard Brass Mfg. Co., Utica, N. Y.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Street & Kent Mfg. Co., Chicago, Ill.
Union Metal Works, Chelsea, Mass.
Waterbury Mfg. Co., Waterbury, Mass.
Wise, J. B., Watertown, N. Y.
Wolff Mfg. Corp., Chicago, Ill.
Woodward-Wanger Co., Philadelphia, Pa.

PIPES, BATH SUPPLY, OFFSET.

Frost Mfg. Co., The, Kenosha, Wis.

PIPES, HOSE.

American Foundry & Mfg. Co., St. Louis, Mo.
Boston—Elkhart Brass Mfg. Co., Elkhart, Ind.
Callahan—The Cornelius Callahan Co., Boston, Mass
Cary—The Cornelius Callahan Co., Boston, Mass.
C. L. E.—H. B. Sherman Mfg. Co., Battle Creek, Mich.
Dixon Valve & Coupling Co., Philadelphia, Pa. (Malleable).
Farnan Brass Works Co., Cleveland, O.
Fries & Co., Buffalo, N. Y.
Gutta Percha & Rubber Mfg. Co., New York, N. Y.
Haydenville Co., The, Haydenville, Mass.
Knox (malleable)—Knox Mfg. Co., Inc., Philadelphia, Pa.
La Favorite Rubber Mfg. Co., Paterson, N. J.
Larkin—Larkin Mfg. Co., Dayton, O.
Seattle Brass Co., Seattle, Wash.
Underwriter—Elkhart Brass Mfg. Co., Elkhart, Ind.
Underwriters—Schlangen Bros. Co., Chicago, Ill.
Wolff Mfg. Corp., Chicago, Ill.
Woodhouse Mfg. Co., New York, N. Y.

PIPES, PERFORATED, AND FITTINGS, URINAL FLUSHING.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Brey & Krause Mfg. Co., Allentown, Pa.
Goetz Brass Co., Chicago, Ill.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Sherwood Brass Works, Detroit, Mich.

PIPING, BLOW, EXHAUST AND VENTILATING.

Allington & Curtis Mfg. Co., Saginaw, Mich.
American Gas Furnace Co., Elizabeth, N. J.
Buffalo Forge Co., Buffalo, N. Y.
Cyclone Blow Pipe Co., Chicago, Ill.
Dixie Mfg. Co., Baltimore, Md.
Grand Rapids Blow Pipe & Dust Arrester Co., Grand Rapids, Mich.
Hoskins Mfg. Co., Detroit, Mich.
Kirk & Blum Mfg. Co., Cincinnati, O.
Littleford Bros., Cincinnati, O.
National Blow Pipe & Mfg. Co., Ltd., New Orleans, La.
New England Ventilating & Heating Co., Providence, R. I.
Skinner Bros. Mfg. Co., St. Louis, Mo.
Sterling Blower Co., The, Hartford, Conn.
U. S. Blow Pipe & Dust Collecting Co., Chicago, Ill.

PLANERS, ANGLE

Thomas Spacing Machine Co., Pittsburgh, Pa.

PLANERS, EMERY.

The Tanite Co., Stroudsburg, Pa.

PLANERS, METAL WORKING.

The American Tool Works Co., The, Cincinnati, O. "American."
Automatic Machine Co., Bridgeport, Conn.
Bethlehem Steel Co., Bethlehem, Pa.
Boynton & Plummer, Inc., Chester Depot, Vt.
Cincinnati Planer Co., The, Cincinnati, O. (Trade names—Cincinnati, Hypro.)
Cincinnati Shaper Co., The, Cincinnati, O.
Cleveland Planer Co., The, Cleveland, O. (Open side.) "Cleveland."
Cleveland Punch & Shear Works Co., Cleveland, O.
Conradson Machine Tool Co., Green Bay, Wis. "Conradson."
Elgin Tool Works, The, Elgin, Ill. (bench).
Fitchburg Machine Works, Fitchburg, Mass.
Gleason Works, Rochester, N. Y.
Gorton, Geo., Machine Co., Racine, Wis.
Gray, G. A., Co., Cincinnati, O. "Gray."
Hamilton Machine Tool Co., Hamilton, O.
Harrington, Edwin, Son & Co., Philadelphia, Pa.
Hendey Machine Co., Torrington, Conn.
Lee—Frank H. Lee Co., The, Danbury, Conn.
McCabe, J. J., Lathe & Mach'y Corp., New York, N. Y.
Morton Mfg. Co., Muskegon, Mich.
Newman—The Tanite Co., Stroudsburg, Pa. (emery).
Newton—Newton Machine Tool Works, Inc., Philadelphia, Pa.
Niles-Rement-Pond Co., New York, N. Y.
The Ohio Machine Tool Co. The, Kenton, O. "Ohio."
Pratt & Whitney Co., Hartford, Conn.
Putnam—Manning, Maxwell & Moore, Inc., New York, N. Y.
Rockford—Rockford Machine Tool Co., Rockford, Ill
Sellers & Co., Inc. Wm., Philadelphia, Pa.
Thomas Spacing Machine Co., Pittsburgh, Pa.
Whipp Machine Tool Co., The, Sidney, O.
Whitcomb—Reed-Prentice Co., Worcester, Mass.
Wilson—Morley Machinery Corp., Rochester, Pa.
Wright, David A., Chicago, Ill.

PLANERS, PLATE.

Covington—Covington Machine Co., Inc., Covington, Va.
Hilles & Jones—Consolidated Machine Tool Corp. of America, New York, N. Y.

PLANERS, PORTABLE AND TRAVELING HEAD.

Morton Mfg. Co., Muskegon Heights, Mich.

PLANERS, WOODWORKING.

(See also "Machinery, Woodworking.")

American Saw Mill Machinery Co., Hackettstown, N. J.
American Woodworking Mach'y Co., Rochester, N. Y.
Chase Turbine Co., Orange, Mass.
Crescent—Crescent Machine Co., Leetonia, O.
Goodspeed Machine Co., Winchendon, Mass.
Grammes, L. F., & Sons, Allentown, Pa.
Hermance Machine Co., Williamsport, Pa.
Hill-Curtis Co., Kalamazoo, Mich.
Lane Mfg. Co., Montpelier, Vt.
Lebanon Machine Co., Lebanon, N. H. "Cole Rotary Bed."
Newman Machine Co., Greenboro, N. C.
Orton Machine Co., San Francisco, Cal.
Robertson Mfg. Co., Buffalo, N. Y.
Scarbrough Mfg. Co., Chattanooga, Tenn. "DeLoach." "Scarbrough."
Sidney Machine Tool Co., The, Sidney, O.
Sinker-Davis Co., Indianapolis, Ind.
H. B. Smith Machine Co., Smithville, N. J. "Smith."
Straitoplane—Oliver Machinery Co., Grand Rapids, Mich.
Towsley, John T., Mfg. Co., Cincinnati, Ohio.
Wallace Bench Planer—J. D. Wallace & Co., Chicago, Ill.
Whitney—Baxter D. Whitney & Son, Winchendon, Mass.
Woods, S. A., Machine Co., Boston, Mass.

PLANES, ELECTRIC, PORTABLE.

Wappat Gear Works, Pittsburgh, Pa. "Aetna Power Plane."

PLANES, WOOD AND IRON.

Bailey & Red Rock—Stanley Rule & Level Co., New Britain, Conn.
Barton—Mack Tool Co., Inc., East Rochester, N. Y.
Chapin-Stephens Co., Pine Meadow, Conn. (wood only)
Clipper—Clipper Tool Co., Buffalo, N. Y.
Sandusky Tool Corp., Sandusky, O.
Sargent—Sargent & Co., New Haven, Conn.
Union Hardware Co., Torrington, Conn.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.

PLANIMETERS.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Ashcroft—The Ashcroft Mfg. Co., New York, N. Y.
Coffin—The Ashcroft Mfg. Co., New York, N. Y.
Foxboro Co., Inc., The, Foxboro, Mass.
Jost's Sons, Edmund, Newark, N. J.
Keufel & Esser Co., New York, N. Y.
Lippincott—A. C. Lippincott, East Orange, N. J.
R. T. & Co.—Richard Thompson & Co., New York.
Star—Star Brass Mfg. Co., Boston, Mass.
Thompson—Richard Thompson & Co., New York, N. Y.
Trill—Trill Indicator Co., Corry, Pa.
Willis—James L. Robertson & Sons, New York, N. Y.

PLATES, AIR VENT.

Albrass Co., Inc., Coxsackie, N. Y.
Hilton Brass Foundry, Hilton, N. J.

PLATES, ANGLE, FOR BORING AND GRINDING MACHINES.

Universal—Boston Scale & Machine Co., Boston, Mass.
Up-To-Date Tool Co., Waltham, Mass.

PLATES, BASE OR SOLE.

American Tool & Machine Co., Boston, Mass
Barry—Barry Co., Muscatine, Ia.
Barry—R. & J. Dick Co., Inc., Passaic, N. J.
Bond Foundry & Machine Co., Manheim, Pa.
Dodge Mfg. Corp., Mishawaka, Ind.
Falls—Falls Clutch & Machinery Co., Kent, O.
Hanson Clutch & Machinery Co., Tiffin, O.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Medart Co., The, St. Louis, Mo.
Nordyke & Marmon, Inc., Indianapolis, Ind.
S. K. F.—S. K. F. Industries, Inc., New York, N. Y.
Valley Iron Works, Williamsport, Pa.
Webster Mfg. Co., Chicago, Ill.
Wood, T. B., Sons Company, Chambersburg, Pa.

PLATES, BELT.

(See also "Fasteners, Belt.")

Crescent—Crescent Belt Fastener Co., Inc., New York, N. Y. (for transmission, elevating and conveying belts).
Giant—Manufacturers Belt Hook Co., Chicago, Ill.
Ideal—W. O. & M. W. Talcott, Inc., Providence, R. I.

PLATES, CESSPOOL.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Bignall Co., The, Medina, N. Y.
Casey-Hedges Co., The, Chattanooga, Tenn.
Fee & Mason Mfg. Co., New York, N. Y.
Glenn Mfg. Co., St. Charles, Ill.
Hilton Brass Foundry, Hilton, N. J.
Jones Hollowware Co., Baltimore, Md.
Richmond Foundry & Mfg. Co., Richmond, Va.
Sanitary Company of America, Linfield, Pa.

PLATES, DOWEL.

Johnson, Wm., Firm of, Newark, N. J.
Shanafelt Mfg. Co., Canton, O.

PLATES, FLOOR AND CEILING.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
A. J. Beaton—The M. S. Little Mfg. Co., Hartford, Conn. (nickel plate).
B. & C.—The Beaton & Corbin Mfg. Co., Southington, Conn. (See Advertisement on next page.)
B. & C. No. 10 & No. 14—The Penn Engineering Co., Philadelphia, Pa.
Blue Ribbon—Chicago Nipple Mfg. Co., Chicago, Ill. (pressed steel and cast iron).
Carpenter & Peterson, Boston, Mass.
Clark, H. W. Co., Mattoon, Ill.
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Devlin Mfg. Co., Thos., Philadelphia, Pa.
Eriez—Eriez Stove & Mfg. Co., Erie, Pa.
Exeter Brass Works, Exeter, N. H.
Farnan Brass Works, Cleveland, O.
Fee & Mason Mfg. Co., New York, N. Y.
Ford & Kendig Co., Philadelphia, Pa.
General Fire Extinguisher Co., New York, N. Y.
Glenn Mfg. Co., St. Charles, Ill.
Good—Good Mfg. Co., Inc., New York, N. Y.
Grabler "Sure Lock"—Grabler Mfg. Co., Cleveland, O.
Grabler Universal—Grabler Mfg. Co., Cleveland, O.
Hays Mfg. Co., Erie, Pa.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Keeney Mfg. Co., The, Newington, Conn.
Lord—The C. H. Yonts Co., Meadville, Pa.
Mobile Iron Works, Mobile, Ala.
Modern Iron Works, Quincy, Ill.
Modern Mfg. Co., Cleveland, Ohio.
National Tube Co., Pittsburgh, Pa. "N. T. C."
Newbury, Jay H., & Son, Goshen, N. Y.
Newbury Mfg. Co., Monroe, N. Y.
Perfection—The Beaton & Cadwell Mfg. Co., New Britain, Conn.
Pittsburg Valve & Fittings Co., Barberton, O.
Ravena Iron Co., Ravena, N. Y.
Robinson Mfg. Co., The, Cleveland, O.
Russell, W. A., & Co., New York, N. Y. "Ajax," "Warco."
Stearns, E. C., & Co., Syracuse, N. Y.
Treadwell Engineering Co., New York, N. Y.
Walworth Company, Boston, Mass.
Waterbury Mfg. Co., Waterbury, Conn.
Wells—The Beaton & Corbin Mfg. Co., Southington, Conn.

PLATES, HAND HOLE, BOILER.

Bros, Wm., Boiler & Mfg. Co., Minneapolis, Minn.
Key—Key Boiler Equipment Co., East St. Louis, Ill.

PLATES, NAME, BRONZE.

Essex Brass Corp., Detroit, Mich.
Tyler, W. S., Co., Cleveland, O.

PLATES, NAME, MACHINERY.

Chandler Co., The, Springfield, Mass.
Everett, A. & Son, Auburn, N. Y.
Good Mfg. Co., Inc., New York. "Good."
Grammes, L. F., & Sons, Allentown, Pa.
Hanson, C. H. Co., Chicago, Ill.
Hoggson & Pettis Mfg. Co., New Haven, Conn.
Matthews & Co., Jas. H., Pittsburgh, Pa.
Markwell—Henry Moss & Co., Inc., New York, N. Y.
National Gauge & Equipment Co., La Crosse, Wis.
Newman Mfg. Co., Cincinnati, O.
Niagara Metal Stamping Corp., Niagara Falls, N. Y.
Schwerdtle Stamp Co., The, Bridgeport, Conn.
Torrey Roller Bushing Co., Bath, Maine.
Turner Brass Works, The, Sycamore, Ill.

PLATES, NAME, PLUMBERS'.

Art Brass Co., The, New York, N. Y.
Bone China—The Trenton Potteries Co., Trenton, N. J.
Good Mfg. Co., New York, N. Y.
Imperial Brass Mfg. Co., The, Chicago, Ill.
National Gauge & Equipment Co., La Crosse, Wis.
Newman Mfg. Co., Cincinnati, O.
Peck Bros. & Co., The, New Haven, Conn.
Perkes, Charles, Co., Philadelphia, Pa.
Union Metal Works, Chelsea, Mass.
Woodward-Wanger Co., Philadelphia, Pa.

PLATES, PUSH, DOOR, GLASS.

Doerco—Doerr Glass Co., Vineland, N. J.

PLATES, RAPPING.

Fraser Pattern—Timmis & Clissold, Bound Brook, N. J.

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(See also "Dies.")

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Favorite, Improved, Paragon—Card, S. W., Mfg. Co., Div. of Union Twist Drill Co., Mansfield, Mass.
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Morse Twist Drill & Machine Co., New Bedford, Mass.
Polk & Son, A. J., Millersburg, Pa.
Reece's Pat.—Butterfield & Co., Div. Union Twist Drill Co., Derby Line, Vt.
Reliable—Conant & Donelson Co., Conway, Mass.
Russell Quality—Russell Mfg. Co., The, Greenfield, Mass.
Thistle—Winter Bros., Co., Wrentham, Mass.
Threadwell Tool Co., The, Greenfield, Mass.
Walworth Company, Boston, Mass.
Wells Tap & Die Co., Greenfield, Mass. "Pee Dee Que."
Williams, J. H. & Co., Buffalo, N. Y.
Zoerman Adjustable—Zoerman-Clark Mfg. Co., Chicago, Ill.

PLATES, SURFACE, CAST IRON.

Bilton Machine Tool Co., The, Bridgeport, Conn.
United—United Machine & Mfg. Co., Canton, Ohio.
Up-To-Date Tool Co., Waltham, Mass.

PLATES, SURFACE, CAST IRON.

Fee & Mason Mfg. Co., New York, N. Y.
Garrison-Heiland Corp., New York, N. Y.

PLATES, WALL.

National Tube Co., Pittsburgh, Pa.
Powhatan Brass & Iron Works, Ranson, W. Va.

PLATES AND POWDERS, WELDING, BRAZING AND TEMPERING

Laffitte—The Phillips-Laffitte Co., Philadelphia, Pa.

PLATES, WORK, FOR DRILLING MACHINES

Cincinnati Bickford Tool Co., The, Oakley, O.

PLATFORMS, FOR LIFT TRUCKS.

Barrett-Cravens Co., Chicago, Ill. "Steeleg."
Enterprise Iron Works, Indianapolis, Ind.
Hallowell—Standard Pressed Steel Co., Jenkintown, Pa.
Lewis-Shepard Co., Boston, Mass.
Littleford Bros., Cincinnati, O.
Plimpton Lift Truck Corp., The, Stamford, Conn.
Powell—Powell Pressed Steel Co., Hubbard, O.
The Stuebing-Cowan Co., Cincinnati, O.
Zering—The H. Zering Mfg. Co., Cincinnati, O. (Lift, for hand and electric trucks.)

PLIERS.

Athol Machine & Foundry Co., Athol, Mass.
Auto Cle—Mossberg Pressed Steel Corp., Attleboro, Mass.
Auto Compressor Co., Wilmington, Del.
B. & S.—The Billings & Spencer Co., Hartford, Conn.
Bergman Tool Mfg. Co., Buffalo, N. Y.
Bernz Co., Otto, Newark, N. J.
Billings & Spencer Co., The, Hartford, Conn. "Hayden."
Boker—H. Boker & Co., New York.
Buffum Tool Co., Louisiana, Mo.
Bullock Mfg. Associates, Springfield, Mass.
Carlson—Noble & Westbrook Mfg. Co., Hartford, Conn.
Clipper Tool Co., Buffalo, N. Y. "Perfection."
Crescent Tool Co., Jamestown, N. Y. (Trade names—Cee Tee Co., Crescent, Crescent Motor Kit, Crescent Universal.)
Cronk—The Cronk & Carrier Mfg. Co., Montour Falls, N. Y.
Danielson, J. P. Co., Inc., Jamestown, N. Y.
Dasco—Damascus Steel Products Co., Rockford, Ill.
Edward Mfg. Co., Brooklyn, N. Y. (offset basin).
Erie Tool Works, The, Erie, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Gray Iron Foundry Co., Reading, Pa.
Grobet File Corp. of America, New York, N. Y.
Herbrand—The Herbrand Co., Fremont, O.
Hjorth Bent Nose—Wm. Hjorth & Co., Jamestown, N. Y.
Irvington Mfg. Co., Irvington, N. J.
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Kilborn & Bishop Co., New Haven, Conn. (Trade names—K. & B., Reliance, Star.)
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Marvo Mfg. Co., Indianapolis, Ind. "Stallings Triple Grip."
Master Plier Corp., Chicago, Ill. "Master."
Maxson & Maxson Co., West Edmeston, N. Y. "M. & M."
Mayhew Steel Products, Inc., New York, N. Y.
Mechanics Tool Co., Rockford, Ill. "Eagle Claw."
Mephisto Reachem—W. A. Ives Mfg. Co., Wallingford, Conn.
Osborne—C. S. Osborne & Co., Harrison, N. J.
Pexto—The Peck, Stow & Wilcox Co., Southington, Conn.
Reed—Reed Mfg. Co., Erie, Pa.
Schollhorn, The Wm. Co., New Haven, Conn. "Bernard."
Smith, H. D., & Co., Plantsville, Conn. "Enchased Joint," "Gittatit."
Smith & Hemenway Co., Inc., Irvington, N. J. (Trade names—Red Devil, Giant Grip.)
Sayre, L. A., Co., Newark, N. J.
Utica Drop Forge & Tool Co., Utica, N. Y.
Universal Equalizer Co., The, Cincinnati, O.
V & B—Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Vacuum Grip—Forged Steel Products Co., Newport, Pa.
Vichek Tool Co., The, Cleveland, O.

PLIERS, NUT.

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PLIERS, RIVETING.

C. R. & S.—Chicago Rivet & Specialty Co., Chicago, Ill.

PLIERS, SIDE CUTTING.

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Sidney—Sidney Steel Scraper Co., Sidney, O.

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American Rubber Products Corp., Jersey City, N. J.
Bemanco—M. S. Little Mfg. Co., Hartford, Conn.
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Canfield Rubber Co., Bridgeport, Conn.
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Cochrane, J. A., Mfg. Co., The, Cleveland, O.
Daisy—Schacht Rubber Mfg. Co., Huntington, Ind.
Diamond Rubber Co., Akron, O.
Durham—Prier Brass Mfg. Co., Kansas City, Mo.
Durst Mfg. Co., Inc., New York, N. Y. "Dumaco."
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Fries & Co., Buffalo, N. Y.
Frost Mfg. Co., The, Kenosha, Wis.
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Goetz Brass Co., Chicago, Ill.
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Haydenville Co., The, Haydenville, Mass.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Holland Rubber Co., New York, N. Y.
Humphryes Mfg. Co., The, Mansfield, O.
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Wilbow—Williams-Bowman Rubber Co., Cicero, Ill.
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Frost Mfg. Co., Kenosha, Wis.
Goetz Brass Co., Chicago, Ill.
Keeney Mfg. Co., The, Newington, Conn.
Haydenville Co., The, Haydenville, Mass.
Loyal Brass Co., Cleveland, O.
Perkes, Charles, Co., Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati O.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Standard Sanitary Mfg. Co. Pittsburgh, Pa.
Stebbins, E., Mfg. Co., Springfield, Mass.
Speakman Co., Wilmington, Del.
Trenton Brass & Machine Co., The, Trenton, N. J.
Union Metal Works, Chelsea, Mass.
Wiseco—J. B. Wise, Inc., Watertown, N. Y.

PLUGS OR STOPPERS, BOILER TUBE.

Griscom-Russell Co., The, New York, N. Y. "Fleming."
Handy—Elisha Webb & Son Co., Philadelphia, Pa.
Huron—Huron Mfg. Co., Detroit, Mich.
Johns-Manville Corporation, New York, N. Y. "J. M."
Newbury, Jay H., & Son, Goshen, N. Y.
Pioneer Brass Works, Indianapolis, Ind.
Scully Steel & Iron Wks., Chicago, Ill.
Swift's—Donnegan & Swift, New York, N. Y.

PLUGS, CONDENSER.

Richardson Brass Co., Edro, Baltimore, Md.

PLUGS, EXPANSION, CORE HOLE.

Welch—M. D. Hubbard Spring Co., Pontiac, Mich.

PLUGS, FUSIBLE.

Allen Mfg. Co., W. D., Chicago, Ill.
Ashcroft—The Ashcroft Mfg. Co., New York, N. Y.
American Injector Co., Detroit, Mich.
Belknap Mfg. Co., The, Bridgeport, Conn.
Bros, Wm., Boiler & Mfg. Co., Minneapolis, Minn.
Buckeye Iron & Brass Works, Dayton, Ohio.
Capitol Brass Works, Detroit, Mich.
Crane—Crane Co., Chicago, Ill.
Detroit—Detroit Lubricator **Co., Detroit, Mich.**
Duplex Safety—B. Hoffmann Mfg. Co., Milwaukee, Wis.
Fries & Co., Buffalo, N. Y.
Exeter Brass Works, Exeter, N. H.
Garratt & Co., W. T., San Francisco, Cal.

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A GOOD NAME TO REMEMBER WHEN BUYING POWER PLANT and INDUSTRIAL SPECIALTIES

Haydenville Co., The, Haydenville, Mass.
Hills-McCanna Co., Chicago, Ill.
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Kinsey & Mahler Co., Peoria, Ill.
Lunkenheimer Co., The, Cincinnati, O.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Mass. Standard—Boston Brass Co., Waltham, Mass.
Moak Machine & Tool Co., Port Huron, Mich.
Ohio—The Ohio Injector Co., Wadsworth, O.
Oil Well Supply Co., Pittsburgh, Pa.
Powell Co., The Wm., Cincinnati, O.
Ellis—Modern Iron Works, Quincy, Ill.
Essex Foundry, Newark, N. J.
Richardson Brass Co., Edro, Baltimore, Md.
Seattle Brass Co., Seattle, Wash.
Sherman Mfg. Co., H. B., Battle Creek, Mich.
Sherwood Mfg. Co., Buffalo, N. Y.
Star Brass Mfg. Co., Boston, Mass. "Star."
Tranter Mfg. Co., Pittsburgh, Pa. "U. S. Standard."
Walworth Company, Boston, Mass.
Williams—The D. T. Williams Valve Co., Cincinnati, O.

PLUGS, LARGE, FOR TESTING WATER MAINS.

Climax—C. M. Kemp Mfg. Co., Baltimore, Md.

PLUGS, LAUNDRY TRAY, BRASS.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Acme Brass Works, Cleveland, O.
American Foundry & Mfg. Co., St. Louis, Mo.
American Pin Co., The, Waterbury, Conn.
Dearborn Brass Co., Cedar Rapids, Ia.
Exeter Brass Works, Exeter, N. H.
Fries & Co., Buffalo, N. Y.
Garrison-Helland Corp., New York, N. Y.
Haydenville Co., The, Haydenville, Mass.
Peck Bros. & Co., The, New Haven, Conn.
Salem Brass & Iron Mfg. Co., Bridgeton, N. J.
Street & Kent Mfg. Co., Chicago, Ill.
Trenton Brass & Machine Co., Trenton, N. J.
Union Metal Works, Chelsea, Mass.

PLUGS, PIPE, BRASS.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
A. I. Co.—American Injector Co., Detroit, Mich. (fusible).
Belfield & Co., H., Philadelphia, Pa.
Detroit Brass & Malleable Works, Detroit, Mich.
Exeter Brass Works, Exeter, N. H.
Fries & Co., Buffalo, N. Y.
General Brass Company, Detroit, Mich.
Guilderland Foundry Co., Guilderland, N. Y.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Penn—East Penn Foundry Co., Macungie, Pa.
Pittsburgh Valve & Fittings Co., Barberton, O.
Powell, Wm., Co., The, Cincinnati, O.
Powhatan Brass & Iron Works, Ranson, W. Va.
Prier Brass Mfg. Co., Kansas City, Mo. "Durham."
Reading Brass Works, Reading, Pa.
Richardson Brass Co., Edro, Baltimore, Md.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Sherman Mfg. Co., H. B., Battle Creek, Mich.
Sterling & Skinner Mfg. Co., The, Detroit, Mich.
Walworth Company, Boston, Mass.

PLUGS, PIPE, CAST IRON.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
C.—Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Exeter Brass Works, Exeter, N. H.
Illinois Malleable Iron Co., Chicago, Ill.
Limbert, Geo. B., & Co., Chicago, Ill.
Newbury, Jay Herbert, Goshen, N. Y.
Newbury Mfg. Co., Monroe, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, O.
Richmond Foundry & Mfg. Co., Richmond, Va.
Walworth Company, Boston, Mass.

PLUGS, PIPE, MALLEABLE IRON.

Belfield Co., H., Philadelphia, Pa.
C.—Crane Co., Chicago, Ill.
Devlin Mfg. Co., Thos., Philadelphia, Pa.
Detroit Brass & Malleable Works, Detroit, Mich.
Illinois Malleable Iron Co., Chicago, Ill.
Pittsburgh Valve & Fittings Co., Barberton, O.
Walworth Company, Boston, Mass.

PLUGS, PIPE, STEEL.

Continental Valve & Equipment Co., Chicago, Ill.

PLUGS, RADIATOR.

Flagg, Stanley G., & Co., Philadelphia, Pa.
Imico—Illinois Malleable Iron Co., Chicago, Ill.
National Radiator Co., Johnstown, Pa.
Newbury, Jay H., & Son, Goshen, N. Y.
Newbury Mfg. Co., Monroe, N. Y.
Pittsburgh Valve & Fitting Co., Barberton, O.
Sterling & Skinner Mfg. Co., Detroit, Mich.
Walworth Company, Boston, Mass.

PLUGS, RUBBER, SERVICE.

Behringer, Edward A., New York, N. Y.

PLUGS, SAND, PLUMBERS'.

Bernz, Otto, Co., Newark, N. J.
Ellis—Modern Iron Works, Quincy, Ill.
Illinois Malleable Iron Co., Chicago, Ill.
Johnson, Wm., Firm of, Newark, N. J.
National Tool Co., New York, N. Y.
Wolff Mfg. Corp., Chicago, Ill.
Woodward-Wanger Co., Philadelphia, Pa.

PLUGS, SINK.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
A. J. Beaton—M. S. Little Mfg. Co., Hartford, Conn.
Duplex—Waterbury Mfg. Co., Inc., Waterbury, Conn.
Elgin Brass Works, New York, N. Y.
Exeter Brass Works, Exeter, N. H.
Frank Bros., New York, N. Y.
Frost Mfg. Co., The, Kenosha, Wis.
Haydenville Co., The, Haydenville, Mass.
Krenz, Oscar, Copper & Brass Works, Inc., The, San Francisco, Cal.
Mott, J. L., Iron Works, The, Trenton, N. J.
Street & Kent Mfg. Co., Chicago, Ill.
Woodward-Wanger Co., Philadelphia, Pa.

PLUGS AND VALVES, SOIL PIPE TESTING.

Alabama Pipe Co., Anniston, Ala.
Bernz, Otto, Co., Newark, N. J.
Climax—C. M. Kemp Mfg. Co., Baltimore, Md.
Dad—D. A. Donovan, Auburn, N. Y.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
East Penn Foundry Co., Macungie, Pa.
Ellis & Ford Mfg. Co., Detroit, Mich.
Gulf States Pipe Corp., Anniston, Ala.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Illinois Malleable Iron Co., Chicago, Ill. "Imico."
Johnson, Wm., Firm of, Newark, N. J.
Metalwood Mfg. Co., Detroit, Mich.
M. I. W.—Modern Iron Works, Quincy, Ill.
Reading Foundry & Supply Co., Reading, Pa.
Simmons, John, Co., New York, N. Y.
Starbuck, R. M. & Sons, Hartford, Conn.
Stringer Bros. Co., Chicago, Ill.
Zurn, J. A., Mfg. Co., Erie, Pa. "Advance."

PLUGS, STAYBOLT.

Key—Key Boiler Equipment Co., East St. Louis, Ill

PLUGS, TAP, BOILER AND PIPE REPAIR.

Good Mfg. Co., Inc., New York, N. Y. "Good."
Modern Mfg. Co., Cleveland, O.
Peerless Mfg. & Supply Co., New York, N. Y. (tap and toggle types).

PLUGS AND TIES, WALL, GALVANIZED.

Estes, E. B., & Sons, New York, N. Y.
Kees, F. D., Mfg. Co., Beatrice, Neb.
Rutty, Morse—J. B. Prescott & Son, Webster, Mass.

PLUGS, WASTE, AND COUPLING COMBINED.

Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.

PLUMB BOBS.

Bernz, Otto, Newark, N. J.
Braunsdorf-Mueller Co., Elizabeth, N. J.
Brown & Sharpe Mfg. Co., Providence, R. I.
Bullock Mfg. Associates, Springfield, Mass.

Can't Roll Hexagon—Dikeman Mfg. Co., The, Norwalk, Conn.
Clipper Tool Co., Buffalo, N. Y. "Perfection."
Disston, Henry, & Sons, Inc., Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Gray Iron Foundry Co., Reading, Pa.
Hold-Fast—Bergman Tool Mfg. Co., Buffalo, N. Y.
Johnson, Wm., Firm of, Newark, N. J.
Lawler's Economy—Lawler Waterfeed & Damper Co., Mt. Vernon, N. Y.
Millers Falls Co., Millers Falls, Mass.
Sargent & Co., New Haven, Conn. "Sargent."
Starrett Co., The, L. S., Athol, Mass.
Stearns & Co., E. C., Syracuse, N. Y.

PLUMBAGO.

Asbury Graphite Mills, Asbury, N. J.
Dixon, Jos., Crucible Co., Jersey City, N. J.
Federal Foundry Supply Co., Cleveland, O.
Hill & Griffith Co., Cincinnati, O. "East India."
McCormick, J. S., Co., Pittsburgh, Pa.
Mexican—The United States Graphite Co., Saginaw, Mich.
Obermayer, S., Co., Cincinnati, O.
Superior Flake Graphite Co., Chicago, Ill. "Superflake."

PLUNGERS, PUMP.

Aldrich Pump Co., The, Allentown, Pa.
Berger Brothers Co., Philadelphia, Pa.
Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.
Black-Clawson Co., Hamilton, Ohio.
Red Jacket Mfg. Co., Davenport, Ia.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

PLUNGERS, TANK.

Taiz, Jacob & Son, Philadelphia, Pa.

POINTERS, BOLT.

Kent Machine Co., Kent O.

POINTERS, SPOKE AND DOWEL.

Hargrave—The Cincinnati Tool Co., Cincinnati, O.
Stearns, E. C., & Co., Syracuse, N. Y.

POINTS, CENTER.

Economy—Manufacturing Equipment Co., Anderson, Ind. (renewable point).

POINTS, CONCRETE

Duffy Manufacturing Co., Chicago, Ill.
Vulcan—Vulcan Tool Mfg. Co., Quincy, Mass.

POINTS OR STRAINERS, DRIVE WELL.

Cook, A. D., Inc., Lawrenceburg, Ind.
Douglas—W. & B. Douglas, Middletown, Conn.
Humphryes Mfg. Co., The, Mansfield, O.
Myers, F. E., & Bro., Ashland, O.
Walworth—Walworth Company, Boston, Mass.

POLES, LATHE TOOL.

Conradson—Phoenix Mfg. Co., Eau Claire, Wis.

POLES, PIKE.

Diener, Geo. W., Mfg. Co., Chicago, Ill.

POLISH, METAL.

A-1 Mfg. Co., Front & Wharton Sts., Philadelphia, Pa. "A-1."
Advance—A. W. Chesterton Co., Boston, Mass.
American Soap & Washoline Co., Cohoes, N. Y. "I. C. U."
Bar Keepers' Friend—Geo. W. Hoffman Co., Indianapolis, Ind.
Baums—Baums Castorine Co., Rome, N. Y.
Beacon—Cincinnati Oil Works Co., Cincinnati, O.
Bettes, A. O., Mfg. Co., Kansas City, Mo. (Trade names—Fireman's Friend, Ideal.)
Blue Ribbon—International Metal Polish Co., Indianapolis, Ind.
Burns, E. Reed, & Sons, Inc., Brooklyn, N. Y., "Climax."
Corliss—Corliss Supply & Mfg. Co., St. Louis, Mo.
Davis, S. W., Oil Co., Providence, R. I. "Nunbetter," "Zone."
Dealers' Steam Packing Co., The, Palmyra, N. Y.
E. Z. Q., Radium—National Paper Products Co., Chem. Div., Los Angeles, Calif.
Flash—Flash Chemical Co., Cambridge, Mass. (liquid).
Gold Medal, Nickel—George William Hoffman Co., Indianapolis, Ind.
Grady Mfg. Co., Long Island City, N. Y. (Trade names—Army & Navy, Cremo, Fire Hat, Glittershine, Scouree, U-Re-Ka.)
Great Western Oil Co., The, Cleveland, O.
Harris Oil Co., A. W., Providence, R. I.
Imperial—Burton H. Rath, Philadelphia, Pa.
Improved Process, Economy—Economy Lubricating Co., Boston, Mass.
Kemoshyne Products, Inc., New York, N. Y. "Kemoshyne."
Keystone—Imperial Polish Co., Philadelphia, Pa.
Kimball, C. M., Co., Winthrop, Mass. "Red Cap."
Lord, F. T., Polish Co., Cambridge, Mass.
Marine—James W. Crane Co., Inc., Brooklyn, N. Y.
McVicker, W. B., Brooklyn, N. Y.
Mexoline—The Matchless Metal Polish Co., Chicago, Ill.
Oleum Products Co., Scranton, Pa. "Rublite."
Optimus, Acme—A. P. Munning & Co., Matawan, N. J.
Newman Mfg. Co., Cincinnati, O.
P. L. C.—Patterson Lubricating Co, Boston, Mass.
Paul, J. C., & Co., Chicago, Ill. "Burnishine," "Dragon."
Rath Mfg. Co., Philadelphia, Pa. "Imperial."
Reznor—Reznor Mfg. Co., Mercer, Pa.
Ruby-Rub—Hinds & Coon, Boston, Mass.
Skat, Skat Silver—The Skat Co., Hartford, Conn.
Solarine Company, Baltimore, Md.
Sonneborn Sons, Inc., L., New York, N. Y.
Star—Star Mfg. Co., Stamford, Conn.
U. S.—Geo. W. Hoffman Co., Indianapolis, Ind.
Whiz—R. M. Hollingshead Co., Camden, N. J.
World Refining Co., The, Easton, Pa.

POSTS, DRILLING, "OLD MAN."

American Steel & Wire Co., Chicago, Ill.
Armstrong Bros. Tool Co., Chicago, Ill.
Combination—Modern Machine Tool Co., Jackson, Mich. (with vise).
Keystone—The Keystone Mfg. Co., Buffalo, N. Y.
King—A. R. King Mfg. Co., Kingston, N. Y.
Lovejoy—Lovejoy Tool Works, Chicago, Ill.
Luther Grinder Mfg. Co., Milwaukee, Wis.
Lutz Co., Inc., Philadelphia, Pa. "Lutz."
Vulcan—Vulcan Tool Mfg. Co., Quincy, Mass.

POSTS, INDICATOR, VALVE.

American Foundry & Mfg. Co., St. Louis, Mo. "National."
Bourbon Copper & Brass Works, The, Cincinnati, O. "Bourbon."
Columbian Iron Works, Chattanooga, Tenn.
Crane Co., Chicago, Ill. "Crane."
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Ludlow Valve Mfg. Co., Troy, N. Y.
Pittsburgh Valve Foundry & Construction Co., The, Pittsburgh, Pa.
Pratt & Cady—Reading Steel Casting Co., Inc., Bridgeport, Conn.
Rensselaer—Rensselaer Valve Co., Troy, N. Y.
Smith, A. P. Mfg. Co., East Orange, N. J.
Walworth Company, Boston, Mass.
Wood & Co., R. D., Philadelphia, Pa.

POSTS, TOOL, LATHE TURRET.

Armstrong Bros. Tool Co., Chicago, Ill.
Chapin-Skelton Corp., Syracuse, N. Y.
Lovejoy Tool Co., Inc., Springfield, Vt.
The McCroskey Tool Corp., Meadville, Pa. "F-P-M."
O. K. Tool Co., Inc., Shelton, Conn.
Rex—Rex Mfg. Co., Boston, Mass.
Williams, J. H., & Co., Buffalo, N. Y.

POSTS, TOWEL BAR, NICKEL AND WHITE.

Doerco—Doerr Glass Co., Vineland, N. J.
Russell, John M., Mfg. Co., Inc., The, Naugatuck, Conn.

POSTS, VISE, PORTABLE.

Ideal Portable Vise Post Co., Albert Lea, Minn.
Penn Engineering Co., Reading, Pa. "Penn."
Q-S Sanitary Mfg. Co., Waterloo, Ia.

POTS, CYANIDE AND LEAD HARDENING

Garwood Bronze & Iron Works, Garwood, N. J.

POTS, FIRE.

(See "Furnaces, Soldering.")

POTS, GALVANIZING.

(See "Kettles and Pots, Galvanizing.")

POTS, GLUE.

(See "Heaters, Glue.")

POTS, METAL MELTING.

American Scale Co., Kansas City, Mo.
Buzzer—Charles A. Hones, Inc., Baldwin, Long Island, N. Y.
Columbiana Boiler Co., The, Columbiana, Ohio.
Eclipse Fuel Engineering Co., Rockford, Ill.
General Electric Co., Schenectady, N. Y.
Koven, L. O., & Bro., Jersey City, N. J.
Mullins Body Corp., Stamping Dept. A, Salem, O.
Valley Iron Works, Williamsport, Pa.

POTS, METAL MELTING, ELECTRIC.

Fabrice, Geo., Jr., Chicago, Ill.
Trent, Harold E., Philadelphia, Pa.

POTS, PLUMBERS' MELTING

Aeroil—Aeroil Burner Co., Inc., Union Hill, N. J.
Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
American Saw & Tool Works, Chicago, Ill.
Bernz, Otto, Newark, N. J.
Buzzer—Charles A. Hones, Inc., Baldwin, Long Island, N. Y.
Casey-Hedges Co., Chattanooga, Tenn.
Clayton & Lambert Mfg. Co., Detroit, Mich.
Central Foundry Co., New York, N. Y.
Detroit Torch & Mfg. Co., Detroit, Mich.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Eclipse—Kupferle Foundry Co., John C., St. Louis, Mo.
Focht, Geo., Sons, Hoboken, N. J.
Garrison-Heiland Corp., New York.
General Electric Co., Schenectady, N. Y.
Glenn Mfg. Co., St. Charles, Ill.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Hollands Mfg. Co., Erie, Pa.
Improved Appliance Co., Brooklyn, N. Y.
Johnson, Wm., Firm of, Newark, N. J.
Koven, L. O. & Bro., Jersey City, N. J.
Modern Iron Works, Quincy, Ill.
Pollard, Joseph G., Co., Inc., Brooklyn, N. Y.
Reading Foundry & Supply Co., Reading, Pa.
Sayre, L. A., Company, Newark, N. J.
Simplex Electric Heating Co., Cambridge, Mass.
Starbuck, R. M., & Sons., Hartford, Conn.
Swett Iron Works, A. L., Medina, N. Y.
U. S. Cast Iron Pipe & Foundry Co., New York, N. Y.
Washington Metal Products Co., Inc., Washington C. H., Ohio.

POTS, SOLDERING, ELECTRIC.

Automatic Electric Heater Co., Philadelphia, Pa. "Sepco."
Electro Engineering Co., Inc., Richmond Hill, N. Y. "Electro-Melter."
Sta-Warm Electric Heater Corp., Ravenna, Ohio.
Wallace, J. D., & Co., Chicago, Ill.

POTS, TEMPERING AND HARDENING.

Eclipse Fuel & Engineering Co., Rockford, Ill.
Garwood Bronze & Iron Works, Garwood, N. J.
Improved Appliance Co., Brooklyn, N. Y.
S. C. & H.—The Strong, Carlisle & Hammond Co., Cleveland, O.
Kantainers—Seamless Steel Products Co., Milwaukee, Wis.
Shelby—National Tube Co., Pittsburgh, Pa.

POTS, TALLOW.

Gem Manufacturing Company, Pittsburgh, Pa.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.
Walters Mfg. Co., Pittsburgh, Pa.

POWDERS, ABRASIVE.

(See "Emery and Other Abrasives.")

POWDERS, SPORTING, MILITARY, BLASTING, ETC.

Alton—Equitable Powder Mfg. Co., East Alton, Ill.
Atlas Powder Co., Wilmington, Del. Trade names—Atlas, Giant, Forcite, Rendite, Miners Friend, Coalite, Vigorite, Farm Powder, Quarry Powder, Stump Powder.
Austin Powder Co., Cleveland, O.
Du Pont de Nemours, E. I., Co., Wilmington, Del. Trade Names—Ballistite, Dupont, Dupont Gallery, Dupont No. 1, Empire, Golden Pheasant, Hazard, Indian, Judson, Kentucky Rifle, Lesmoke, Marksman, R. S. Q., Schuetzen Schultze, Indian Rife, Red Cross.
Grasselli—Grasselli Powder Co., Cleveland, O.
Hercules Powder Co., Wilmington, Del. Trade Names—Red H. Xpdite Permissible Dynamite, Infallible Smokeless Shotgun Powder, E. C. Smokeless Shotgun Powder, L. & R. Orange Extra Black Sporting Powder, H. Vel, 300 & 308 Military Rifle Powders, Lightning Smokeless Rifle Powder, Sharpshooter Smokeless Rifle Powder, Unique Smokeless Rifle Powder, Bullseye Smokeless Revolver Powder, Hercomite, Special No. 1.
Keystone—Keystone National Powder Co., Emporium, Pa.

POWDERS, WELDING, BRAZING AND TEMPERING.

Laffitte—The Phillips-Laffitte Co., Philadelphia, Pa.

POWERS, FOOT.

American Grinder Mfg. Co., Milwaukee, Wis.
Goodell-Pratt Co., Greenfield, Mass.

POWERS, PUMPING.

Masseth—Masseth Packer & Machine Co., Butler, Pa.
Myers, F. E., & Bro., Co., Ashland, O.
Oklahoma Iron Works, Tulsa, Okla.

PRECLUDERS, CORROSION.

Badenhausen Corp., Cornwells Heights, Pa.

PREHEATERS, AIR.

Air Preheater Corp'n, New York, N. Y.
Badenhausen Corp., Cornwells Heights, Pa. "Badenhausen."
Combustion Engineering Corp., New York, N. Y.
Green Fuel Economizer Co., Beacon, N. Y.
Prat-Daniel Corp'n, New York, N. Y.

PREHEATERS, WELDING.

Aeroil Burner Co., Union Hill, N. J.
Hauck Mfg. Co., Brooklyn, N. Y.
Mahrvel—Mahr Mfg. Co., Minneapolis, Minn.
Meco—Modern Engineering Co., St. Louis, Mo.
Rego—The Bastian-Blessing Co., Chicago, Ill.
Smith Welding Equipment Corp., Minneapolis, Minn.
Milburn, Alexander Co., The, Baltimore, Md.
Wiederwax—Geist Mfg. Co., Atlantic City, N. J.

PRESERVERS, PROTECTORS, AND SHIELDS, GAGE AND LUBRICATOR GLASS.

(See "Glass Preservers, Gage," and "Washers, Gage Glass.")

PRESSES, ARBOR.

Atlas Press Co., Kalamazoo, Mich.
Barnes, W. F., & John Co., Rockford, Ill.
Bartlett, Edwin E., Nashua, N. H. "Greenerd."
Blake & Johnson Co., Waterbury, Conn.
Chambersburg Engineering Co., Chambersburg, Pa.
Champion Blower & Forge Co., Lancaster, Pa.
Ekern-Turk Mfg. Co., Inc., Pipestone, Minn. (hydraulic).
Evansville Arbor Press Co., Evansville, Ind.
Fox Machine Co., Jackson, Mich.
Geier, P. A., Co., Cleveland, O.
Hydraulic Press Mfg. Co., The, Columbus, O. (hydraulic). "H. P. M."
Hannifin Mfg. Co., Chicago, Ill.
King Machine Tool Co., The, Cincinnati, O. (Hand and power.)
Little Giant Co., Mankato, Minn.
Lourie Mfg. Co., Springfield, Ill.
Lucas Machine Tool Co., Cleveland, O. "Lucas Patent."
Manufacturers' Equipment Co., Chicago. "M. E. C."
Myers—Myers Machine Tool Corp., Columbia, Pa.
Nicholson, W. H., & Co., Wilkesbarre, Pa. "Nicholson."
Perfection—Naperville Machine Co., Inc., Naperville, Ill.
Seneca Falls Mfg. Co., Seneca Falls, N. Y.
Sheldon Machine Co., Chicago, Ill.
Smith, Winfield H., Springville, N. Y. (small).
Southwark Foundry & Machine Co., Philadelphia, Pa.
Threadwell Tool Co., The, Greenfield, Mass.
Towsley, John T., Mfg. Co., Cincinnati, O.
Verson—La Salle Machine Works, Chicago, Ill.
Watson-Stillman Co., New York, N. Y.
Weaver Mfg. Co., Springfield, Ill. "Weaver Forcing."

PRESSES, BALING.

(See also "Presses, Hydraulic.")

Adams, W. T., Machine Co., Corinth, Mass. (for cotton).
Alsteel—Alsteel Mfg. Co., Battle Creek, Mich.
American—American Engine & Boiler Works, Tonawanda, N. Y.
Business Men's Paper Press Co., Wayland, Mich.
Davenport Mfg. Co., Inc., The, Davenport, Ia. "Schicks."
Dunning & Boschert Press Co., Inc., Syracuse, N. Y.
Economy, Little Mint, Modern—Economy Baler Co., Ann Arbor, Mich. (hand, foot and hydraulic).
Ertel—George Ertel Co., Quincy, Ill.

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ECONOMY BALER CO.
ANN ARBOR
ALL STEEL ECONOMY FIRE PROOF
Dept. M. S. MICH.

Faeberhill—Republic Steel Package Co., Cleveland, Ohio. (Cement bag.)
Famous Mfg. Co., East Chicago, Ind. "Champion," "Famous."
Galland-Henning Mfg. Co., Milwaukee, Wis.
Home Mfg. Co., Mattoon, Ill. (paper). "Home."
Hydraulic Press Mfg. Co., The, Columbus, O. "H. P. M."
Kline, Lewis T., Alpena, Mich.
Little Giant—The Cardwell Machine Co., Richmond, Va.
Logeman Bros. Co., Milwaukee, Wis. (For paper and scrap metals.)
Merchants Baler, Dependable—Shaw, Welsh & Co., Galesburg, Ill.
Minnich Machine Works, Landisville, Pa. "Minnich's."
Modern Leader—Chicago Baling Press Mfg. Co., Chicago, Ill. (Scrap metal and paper).
Rex Engineering Co., Chicago, Ill. "Rex."
Rowe Tip Top—Rowe Mfg. Co., Galesburg, Ill.
Safety First—Chicago Baling Press Mfg. Co., Chicago, Ill.
Staley—Lourie Mfg. Co., Springfield, Ill.
Superior—G. Wenzelmann, Galesburg, Ill. (paper).
Thelen—Thelen Brothers, Syracuse, N. Y.
Trevor Mfg. Co., Lockport, N. Y.
Vaughn—Vaughn Machinery Co., Cuyahoga Falls, O. (wire rod scrap.)
Watson-Stillman Co., New York, N. Y.

PRESSES, BLANKING.

Adriance Machine Works, Inc., Brooklyn, N. Y.
Bliss, E. W., & Co., Brooklyn, N. Y.
Konigslow Stamping & Tool Works, E. Cleveland, O.
Niagara Machine & Tool Works, Buffalo, N. Y.
Stoll, D. H., Co., Inc., Buffalo, N. Y.
Toledo Machine & Tool Co., Toledo, Ohio.

PRESSES, BUSHING.

Chambersburg Engineering Co., Chambersburg, Pa.
Southwark Foundry & Machine Co., Philadelphia.

PRESSES, BUTTON.

Helwig—Helwig Mfg. Co., St. Paul, Minn.

PRESSES, COINING.

(See "Presses, power and dies.")

PRESSES, COTTON, YARN AND CLOTH.

Economy—Economy Baler Co., Ann Arbor, Mich.

PRESSES, CRANK PIN.

Chambersburg Engineering Co., Chambersburg, Pa.
Elmes, Chas., F., Engineering Works, Chicago, Ill.
Hydraulic Press Mfg. Co., The, Columbus, O. "H. P. M."
Watson-Stillman Co., The, New York.

PRESSES, CURB OR SCRAP.

Economy—Economy Baler Co., Ann Arbor, Mich.
Southwark Foundry & Machine Co., Philadelphia, Pa.

PRESSES, DIE SINKING.

French Oil Mill Machinery Co., Piqua, Ohio.
Hydraulic Press Mfg. Co., The, Columbus, O. "H. P. M."
Southwark Foundry & Machine Co., Philadelphia, Pa.

PRESSES, DRAWING AND DOUBLE DRAWING.

Adriance Machine Works, Inc., Brooklyn, N. Y.
Bliss, E. W. Co., Brooklyn, N. Y.
Chambersburg Engineering Co., Chambersburg, Pa.
Ferracute Machine Co., Bridgeton, N. J.
Niagara Machine & Tool Works, Buffalo, N. Y.
Stoll, D. H., Co., Inc., Buffalo, N. Y.

PRESSES, DRILL.

(See "Machines, Drilling.")

PRESSES, DROP.

Bliss, E. W., Co., Brooklyn, N. Y.
Canton Foundry & Machine Co., Canton, O.
Chambersburg Engineering Co., Chambersburg, Pa.
Ferracute Machine Co., Bridgeton, N. J.
Heartley Machine, Variety Iron & Tool Works, Toledo, O.
Leffler, Chas., & Co., Brooklyn, N. Y.
Merriman—Meriden Press & Drop Co., The, Meriden, Conn.
Niagara Machine & Tool Works, Buffalo, N. Y.
Ohl, Geo. A. & Co., Newark, N. J.
Peck—Miner & Peck Mfg. Co., New Haven, Conn.
Stoll, D. H., Co., Inc., Buffalo, N. Y.
Toledo Machine & Tool Co., The, Toledo, Ohio.
Zeh & Hahnemann Co., Newark, N. J.

PRESSES, EMBOSSING.

Adriance Machine Works, Inc., Brooklyn, N. Y.
Baird Machine Co., Bridgeport, Conn.
Bliss, E. W., Co., Brooklyn, N. Y. "Bliss."
Carver, C. R., Co., Philadelphia, Pa.
Chambersburg Engineering Co., Chambersburg, Pa (hydraulic).
Ferracute Machine Co., Bridgeport, N. J.
Grammes, L. F., & Sons, Allentown, Pa.
Heartley Machine, Variety Iron & Tool Works, Toledo, O.
Logemann Bros., Milwaukee, Wis.
Niagara Machine & Tool Works, Buffalo, N. Y.
Ohl—Geo. A. Ohl & Co., Newark, N. J.
P. P. P.—Perkins Machine Co., Warren, Mass.
Rockford Iron Works, Rockford, Ill.
Roovers—Roovers Bros., Brooklyn, N. Y.
Stoll, D. H., Co., Inc., Buffalo, N. Y.
Zeh & Hahnemann Co., Newark, N. J.

PRESSES, FERTILIZER.

Dunning & Boschert Press Co., Inc., Syracuse, N. Y.
Economy—Economy Baler Co., Ann Arbor, Mich.
Hydraulic Press Mfg. Co., The, Columbus, O. "H. P. M."

PRESSES, FILTER.

Elmes, Chas. F., Engineering Works, Chicago, Ill.
Kelly—Emil E. Lungwitz, New York, N. Y.
Logemann Bros., Milwaukee, Wis.
Perrin & Co., Wm. R., Chicago, Ill.
Provo—Provost Engineering Corp., Brooklyn, N. Y.
Shriver—Shriver & Co., T., Harrison, N. J.
Simplex—Simplex Ejector Co., Chicago, Ill.
Smith-Vaile—The Platt Iron Works, Dayton, O.

PRESSES, FLANGING.

Aldrich—The Allen Pump Co., Allentown, Pa.
Southwark Foundry & Machine Co., Philadelphia, Pa.

PRESSES, FOOT AND HAND POWER.

Adriance Machine Works, Brooklyn, N. Y.
Atlas—Atlas Machine Co., The, Waterbury, Conn.
Atlas Press Co., Kalamazoo, Mich.
Baird Machine Co., The, Bridgeport, Conn.
Bliss, E. C., Mfg. Co., Providence, R. I.
Blake & Johnson Co., Waterbury, Conn.
Economy Baler Co., Ann Arbor, Mich.
Ferracute Machine Co., Bridgeton, N. J.
Grammes, L. F., & Sons, Allentown, Pa.
Heartley Machine, Variety Iron & Tool Works, Toledo, O.
Kidder, J. F., Mfg. Co., Burlington, Vt.
King Machine Tool Co., The, Cincinnati, O.
Niles Machine Co., Lebanon, N. H.
Niagara Machine & Tool Works, Buffalo, N. Y.
Partridge—E. O. Partridge, Chicago, Ill.
Peck, Stow & Wilcox Co., Southington, Conn.
Perkins—Perkins Machine Co., Warren, Mass.
Royersford Foundry & Machine Co., Royersford, Pa.
Shuster, F. B., Co., New Haven, Conn.
Standard Machinery Co., Providence, R. I.
Taylor & Fenn Co., Hartford, Conn.
Toledo Machine & Tool Co., The, Toledo, Ohio.
V & O—The V & O Press Co., Brooklyn, N. Y. (horning and wiring, dial feed, roll feed, straight sided).
Way—A. F. Way Co., Inc., Hartford, Conn.
Weaver Forcing—Weaver Mfg. Co., Springfield, Ill.

PRESSES, FORCING.

Barnes, W. F. & John, Co., Rockford, Ill.
Chambersburg Engineering Co., Chambersburg, Pa.
Champion Blower & Forge Co., The, Lancaster, Pa.
Elmes, Chas., Engineering Works, Chicago, Ill.
Hydraulic Press Mfg. Co., The, Columbus, Ohio. "H. P. M."
Lucas Patent—Lucas Machine Tool Co., Cleveland, O.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Watson-Stillman Co., The, New York, N. Y.

PRESSES, FORGING.

(See also "Machines, forging")

Aldrich—Aldrich Pump Co., Allentown, Pa.
Bethlehem Steel Co., Bethlehem, Pa.
Bliss—E. W. Bliss Co., Brooklyn, N. Y.
Chambersburg Engineering Co., Chambersburg, Pa.
Garrison, A., Foundry Co., Pittsburgh, Pa.
Heartley Machine, Variety Iron & Tool Works, Toledo, Ohio.
Hydraulic Press Mfg. Co., The, Columbus, Ohio. "H. P. M."
Mesta—Mesta Machine Co., Pittsburgh, Pa.
Morgan Engineering Co., Alliance, Ohio.
Reading Iron Co., Reading, Pa.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Toledo Machine & Tool Co., Toledo, Ohio.

PRESSES, GARAGE.

Champion Blower & Forge Co., Lancaster, Pa.
Manley Mfg. Co., York, Pa.

PRESSES, GLUE.

Handy—Handy Mfg. Co., Chicago, Ill.

PRESSES, HYDRAULIC.

Aldrich Pump Co., Allentown, Pa
Allen Machine Co., Erie, Pa.
Bethlehem Steel Co., Bethlehem, Pa.
Biggs Boiler Works Co., The, East Akron, O.
Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa.
Burroughs, Chas., Co., The, Newark, N. Y.
Bushnell Press Works, Thompsonville, Conn. "Bushnell."
Chambersburg Engineering Co., Chambersburg, Pa.
Crawford—Nashua Steam Press & Boiler Works, Nashua, N. H.
Dudgeon, Richard, New York. "R. Dudgeon."
Dunning & Boschert Press Co., Inc., Syracuse, N. Y.
Economy Baler Co., Ann Arbor, Mich. (baling).
Elmes, Chas. F., Engineering Works, Chicago, Ill.
Excelsior Tool & Machine Co., East St. Louis, Ill.
Farquhar, A. B., Co., Ltd., York, Pa.
Francis—Chas. E. Francis Co., Rushville, Ind.
French Oil Mill Machinery Co., Piqua, Ohio.
Galland-Henning Mfg. Co., Milwaukee, Wis.
Grote—F. Grote Mfg. Co., Evansville, Ind.
Hydraulic Press Mfg. Co., The, Columbus, O. "H. P. M."
McGowan—John H. McGowan Co., The, Cincinnati, Ohio.
Little Giant—The Cardwell Machine Co., Richmond, Va.
Logemann Bros., Milwaukee, Wis.
Lourie Mfg. Co., Springfield, Ill. "Lourie."
Mackintosh, Hemphill & Co., Pittsburgh, Pa.
Mesta—Mesta Machine Co., Pittsburgh, Pa.
Morgan Engineering Co., Alliance, Ohio.
Niles-Bement-Pond Co., New York, N. Y.
Oilgear Co., Milwaukee, Wis.
Perrin & Co., Wm. R., Chicago, Ill.
Pulaski Foundry & Mfg. Corp., Pulaski, Va.
Reading Iron Co., Reading, Pa.
Robertson, John, & Co., Brooklyn, N. Y.
Sellers, Wm., & Co., Inc., Philadelphia, Pa.
Shriver & Co., T., Harrison, N. J. "Shriver."
Southwark Foundry & Machine Co., Philadelphia, Pa.
United Engineering & Foundry Co., Pittsburgh, Pa.
Vulcan Iron Works, Chicago, Ill.
Watson-Stillman Co., The, New York, N. Y.
West Tire Setter Co., Rochester, N. Y. (Shell Banding.) "West."
Williams, White & Co., Moline, Ill.
Williamson-Harris Mfg. Co., Cordele, Ga.
Wood & Co., R. D., Philadelphia, Pa.
Wood, William H., Media, Pa.

PRESSES, HYDRO-PNEUMATIC.

Chambersburg Engineering Co., Chambersburg, Pa.
Hydraulic Press Mfg. Co., The, Columbus, O. "H. P. M."

PRESSES, LEATHER BELTING.

Chambersburg Engineering Co., Chambersburg, Pa.
Dunning & Boschert Press Co., Inc., Syracuse, N. Y.
Hydraulic Press Mfg. Co., The, Columbus, O. "H. P. M."
Elmes, Chas. F., Engineering Works, Chicago, Ill.
Prims, J. C., Hornell, N. Y.
Standard Leather Machinery Co., Chicago, Ill.
Watson-Stillman Co., The, New York, N. Y.

PRESSES, NOTCHING.

Ams—Max Ams Machine Co., New York, N. Y.
Kidder, J. F., Mfg. Co., Burlington, Vt. (hand power).
Southwark Foundry & Machine Co., Philadelphia, Pa.
Toledo Machine & Tool Co., The, Toledo, Ohio.

PRESSES, PNEUMATIC.

Nietzsche—Nietzsche & Co., Providence, R. I.
Slocomb, F. F., & Co., Wilmington, Del.
Springfield Machine Tool Co., The, Springfield, O.

PRESSES, POWER, INCLINABLE.

Amscan—The Max Ams Machine Co., New York, N. Y.
Bliss, E. W., Co., Brooklyn, N. Y.
Chambersburg Engineering Co., Chambersburg, Pa.
Heartley Machine, Variety Iron & Tool Works, Toledo, Ohio.
Loshbough-Jordan Tool & Machine Co., Elkhart, Ind.
Massillon Foundry & Machine Co., Massillon, Ohio.
Niagara Machine & Tool Works, Buffalo, N. Y.
Rockford Iron Works, Rockford, Ill.
Taylor-Shantz Co., Rochester, N. Y.
Toledo Machine & Tool Co., Toledo, O.
V. & O. Press Co., The, Brooklyn, N. Y.
Verdin, Kappes & Verdin Co., Cincinnati, Ohio.
Walsh Press & Die Co., Chicago, Ill.

PRESSES, POWER, KNUCKLE JOINT.

Amscan—The Max Ams Machine Co., New York, N. Y.
Blake & Johnson Co., Waterbury, Conn.
Bliss—E. W. Bliss Co., Brooklyn, N. Y.
Bushnell Press Works, Thompsonville, Conn. "Bushnell."
Dunning & Boschert Press Co., Inc., Syracuse, N. Y.

PRESSES, POWER, AND DIES.

Adriance Machine Works, Brooklyn, N. Y.
Allen Machine Co., Erie, Pa.
Amscan—The Max Ams Machine Co., New York, N. Y.
Atlas Machine Co., The, Waterbury, Conn.
Automatic Machine Co., Bridgeport, Conn.
Baird Machine Co., The, Bridgeport, Conn.
Billings & Spencer Co., Hartford, Conn.
Bliss, E. W., Co., Brooklyn, N. Y. "Consolidated," "Stiles."
Canton Foundry & Machine Co., Canton, O.
Carver, C. R., Co., Philadelphia, Pa.
Chambersburg Engineering Co., Chambersburg, Pa.
Champion Blower & Forge Co., Lancaster, Pa.
Coulter & McKenzie Machine Co., The, Bridgeport, Conn.
Draher, John, Waterbury, Conn.
Flexible—Fox Machine Co., Jackson, Mich.
Ferracute Machine Co., Bridgeton, N. J.
French Oil Mill Machinery Co., Piqua, Ohio.
Garrison, A., Foundry Co., Pittsburgh, Pa.
General Manufacturing Co., Detroit, Mich.
Heartley Machine, Variety Iron & Tool Works, Toledo, Ohio.
Henderer's Sons, A. L., Wilmington, Del.
Konigslow Stamping & Tool Works, Cleveland, O.
Leffler, Chas., & Co., Brooklyn, N. Y.
Logemann Bros., Milwaukee, Wis.
Lucas Patent—Lucas Machine Tool Co., Cleveland, O
Manville—The E. J. Manville Machine Co., Waterbury, Conn.
Massillon—Massillon Fdy. & Mach. Co., Massillon, O.
Meriden Press & Drop Co., Meriden, Conn. "Merriman."
Michigan—National Fdry. & Machine Co., Ypsilanti, Mich.
Morgan Engineering Co., Alliance, O.
Niagara Machine & Tool Works, Buffalo, N. Y.
Ohl—Geo. A. Ohl & Co., Newark, N. J.
Perkins—Perkins Machine Co., Warren, Mass
Robinson, J. M., Mfg. Co., Cincinnati, O.
Rockford—Rockford Iron Works, Rockford, Ill.
Royersford Foundry & Machine Co., Royersford, Pa.
Shuster, F. B., Co., New Haven, Conn.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Springfield Machine Tool Co., The, Springfield, O.
Standard Machinery Co., Providence, R. I.
Stimpson Co., Edwin B., Brooklyn, N. Y.
Stoll, D. H., Co., Inc., Buffalo, N. Y.
Streine Tool & Mfg. Co., New Bremen, O.
Swaine, F. J., Mfg. Co., Hartford, Conn.
Taylor & Fenn Co., Hartford, Conn.
Taylor, Shantz Co., Rochester, N. Y.
Thomas Spacing Machine Co., Pittsburgh, Pa.
Toledo—The Toledo Machine & Tool Co., Toledo, O.
United Engineering & Foundry Co., Pittsburgh, Pa.
V. & O.—V. & O. Press Co., Brooklyn, N. Y.
Verdin Kappes & Verdin, Cincinnati, O.
Verson—La Salle Machine Works, Chicago, Ill.
Walsh Press & Die Co., Chicago, Ill.
Way—A. F. Way Co., Inc., Hartford, Conn.
Worcester Pressed Steel Co., Worcester, Mass.
Wright—The Henry & Wright Mfg. Co., Hartford, Conn.
Yankee—Rowbottom Machine Co., Waterbury, Conn.
Zeh & Hahnemann Co., Newark, N. J.

PRESSES, PULP AND PAPER.

Economy Baler Co., Ann Arbor, Mich.
Southwark Foundry & Machine Co., Philadelphia, Pa.

PRESSES, PUNCHING.

Adriance—Adriance Machine Works, Brooklyn, N. Y.
Amscan—The Max Ams Machine Co., New York, N. Y.
Armstrong-Blum Mfg. Co., Chicago, Ill.
Badger—Rock River Machine Co., Janesville, Wis.
Badger State Machine Co., Beloit, Wis.
Baird Machine Co., The, Bridgeport, Conn.
Beatty Machine & Mfg. Co., Hammond, Ind.
Bellefonte Engineering Co., The, Bellefonte, Pa.
Beloit—Hendley & Whittemore Co., Beloit, Wis.
Bertsch & Co., Cambridge City, Ind.
Bliss—E. W. Bliss Co., Brooklyn, N. Y.
Braunsdorf-Mueller Co., Elizabeth, N. J.
Buffalo Forge Co., Buffalo, N. Y.
Chambersburg Engineering Co., Chambersburg, Pa. (sheet metal).
Cleveland — Cleveland Punch & Shear Works Co., Cleveland, O.
Clough, R. M., Tolland, Conn.
Covington Machine Co., Covington, Va.

Emco "W"—The Enterprise Machine Tool Co., Chicago, Ill.
Excelsior Tool & Machine Co., East St. Louis, Ill.
Federal Press Co., Elkhart, Ind.
Ferracute Machine Co., Bridgeton, N. J.
Grammes, L. F., & Sons, Allentown, Pa.
Heartley Machine, Variety Iron & Tool Works, Toledo, Ohio.
Hilles & Jones—Consolidated Machine Tool Corp. of America, New York, N. Y.
Malm Machine Co., Dayton, O.
Massillon Foundry & Machine Co., Massillon, O.
Niagara Machine & Tool Works, Buffalo, N. Y.
Niles-Bement-Pond Co., New York.
Ohl—Geo. A. Ohl & Co., Newark, N. J.
Perkins—Perkins Machine Co., Warren, Mass.
Robinson Mfg. Co., J. M., The, Cincinnati, O.
Rockford—Rockford Iron Works, Rockford, Ill.
Royersford Foundry & Machine Co., Royersford, Pa.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Stiles—E. W Bliss Co., Brooklyn, N. Y.
Stoll, D. H., Co., Inc., Buffalo, N. Y.
Swaine Mfg. Co., The Fred J., St. Louis, Mo.
Thomas Spacing Machine Co., Pittsburgh, Pa.
Toledo Machine & Tool Co., The, Toledo, O.
V. & O.—The V. & O. Press Co., Brooklyn, N. Y.
Wells, Frank L., Co., Kenosha, Wis.
Zeh & Hahnemann Co., Newark, N. J.

PRESSES, RIVETING.

(See also "Riveters.")

Bliss—E. W. Bliss Co., Brooklyn, N. Y.
Chambersburg Engineering Co., Chambersburg, Pa.
Heartley Machine, Variety Iron & Tool Works, Toledo, Ohio.
Mesta Machine Co., The, Pittsburgh, Pa.
Toledo Machine & Tool Co., The, Toledo, Ohio.

PRESSES, RUBBER CURING.

Southwark Foundry & Machine Co., Philadelphia, Pa.

PRESSES, SCREW.

Adriance Machine Works, Inc., Brooklyn, N. Y.
Barnes, W. F. & John, Co., Rockford, Ill.
Bliss, E. W., Co., Brooklyn, N. Y.
Dunning & Boschert Press Co., Inc., Syracuse, N. Y.
Economy Baler Co., Ann Arbor, Mich.
Elmes, Charles F., Engineering Works, Chicago, Ill.
Ferracute Machine Co., Bridgeton, N. J.
Francis—Francis Co., Chas. E., Rushville, Ind.
Heartley Machine, Variety Iron & Tool Works, Toledo, Ohio.
Manhattan Machine & Tool Works, Grand Rapids, Mich.
Manley—The Manley Mfg. Co., York, Pa.
Nashua Steam Press & Boiler Works, Nashua, N. H. "Crawford."
Perkins—Perkins Machine Co., Warren, Mass.
Perrin & Co., Wm. R., Chicago, Ill. (power).
R-W—Richards-Wilcox Mfg. Co., Aurora, Ill.
Standard Machinery Co., Providence, R. I.
Toledo Machine & Tool Co., The, Toledo, Ohio.
Weaver Mfg. Co., Springfield, Ill. "Weaver Forcing."
Zeh & Hahnemann Co., Newark, N. J.

PRESSES, SEAL.

American Casting & Mfg. Corp., Brooklyn, N. Y.
Hoggson & Pettis Mfg. Co., New Haven, Conn.
Morrill, Apex—Chas. Morrill, New York, N. Y.
Schwerdtle Stamp Co., Bridgeport, Conn.
Utica—Utica Drop Forge & Tool Co., Utica, N. Y.

PRESSES, SHEARING AND CUTTING.

Ferracute Machine Co., Bridgeton, N. J.

PRESSES, STAMPING, GANG, AND TOGGLE DRAWING.

Bliss, E. W., Co., Brooklyn, N. Y.
Ferracute—Ferracute Machine Co., Bridgeton, N. J.
Niagara Machine & Tool Works, Buffalo, N. Y.
Stoll, D. H., Co., Inc., Buffalo, N. Y.
Toledo Machine & Tool Co., Toledo, O.

PRESSES, STEAM.

Mesta—Mesta Machine Co., Pittsburgh, Pa.
Southwark Foundry & Machine Co., Philadelphia, Pa.

PRESSES, STRAIGHTENING STOCK AND SHAFTING.

Chambersburg Engineering Co., Chambersburg, Pa.
Columbia Mfg. Co., Belleville, Ill.
Continental Auto Parts Co., Columbus, Ind
Eagle Machine Shop, Champaign, Ill. (crankshaft).
French Oil Mill Machinery Co., Piqua, Ohio.
Geier, P. A., Co., Cleveland, O.
Hilles & Jones—Consolidated Machine Tool Corporation of America, New York, N. Y.
Hydraulic Press Mfg. Co., The, Columbus, O. "H. P. M."
Logemann Bros., Milwaukee, Wis.
Little Giant—B. B. Noyes Co., Greenfield, Mass.
Metalwood Mfg. Co., Detroit, Mich. "Metalwood."
Morse—Morse Twist Drill & Machine Co., New Bedford, Mass.
Niles-Bement-Pond Co., New York, N. Y.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Springfield Machine Tool Co., Springfield, O.
Superflex—Fox Machine Co., Jackson, Mich.
Towsley, John T., Mfg. Co., Cincinnati, O.
Watson-Stillman Co., The, New York, N. Y.

PRESSES, STRAIGHTENING, AND ARBOR COMBINED.

Superflex—Fox Machine Co., Jackson, Mich.
Towsley, John T., Mfg. Co., Cincinnati, O.

PRESSES, SUB.

Blake & Johnson Co., Waterbury, Conn.
U. S. Tool Co., Inc., Ampere, N. J.

PRESSES, THROAT.

Ferracute—Ferracute Machine Co., Bridgeton, N. J.

PRESSES, TIE PLATE.

Chambersburg Engineering Co., Chambersburg, Pa.
West Tire Setting Co., Rochester, N. Y.
Wilson—The Watson-Stillman Co., New York, N. Y.

PRESSES, TIRE FORCING.

Aldrich—The Aldrich Pump Co., Allentown, Pa.
Allen Machine Co., Erie, Pa.
Hydraulic Press Mfg. Co., The, Columbus, O. (auto truck tires). "H. P. M."

PRESSES, TRIMMING, METAL WORKING.

Bliss—E. W. Bliss Co., Brooklyn, N. Y.
Chambersburg Engineering Co., Chambersburg, Pa.
Erie Foundry Co., Erie, Pa.
Heartley Machine, Variety Iron & Tool Works, Toledo, Ohio.
Massillon—Massillon Fdry. & Mach. Co., Massillon O.
Merrill Bros., Maspeth, New York, N. Y.
Niagara Machine & Tool Works, Buffalo, N. Y.
Perkins Machine Co., Warren, Mass. "Perko," "Perkins."
Stoll, D. H., Co., Inc., Buffalo, N. Y.
Toledo—Toledo Machine & Tool Co., Toledo, O.
United Engineering & Foundry Co., Pittsburg, Pa.

PRESSES, VENEER.

Advance—Advance Machinery Co., Van Wert, O.
Aldrich—Aldrich Pump Co., Allentown, Pa.
Black Bros. Co., The, Mendota, Ill.
Chambersburg Engineering Co., Chambersburg, Pa.
Dunning & Boschert Press Co., Inc., Syracuse, N. Y.
Economy Baler Co., Ann Arbor, Mich. "Economy."
Elmes, Charles F., Engineering Works, Chicago, Ill.
Francis, Chas. E., Co., Rushville, Ind.
Handy Mfg. Co., Chicago, Ill. "Handy."
Hydraulic Press Mfg. Co., The, Columbus, O. "H. P. M."
Toledo Machine & Tool Co., Toledo, Ohio.
Towsley, John T., Mfg. Co., Cincinnati, O.

PRESSES, WHEEL, HYDRAULIC.

Aldrich—The Aldrich Pump Co., Allentown, Pa.
Black Bros. Co., Mendota, Ill.
Chambersburg Engineering Co., Chambersburg, Pa.
Dudgeon, Richard, New York. "R. Dudgeon."
Elmes, Charles F., Engineering Works, Chicago, Ill.
Hydraulic Press Mfg. Co., The, Columbus, O. "H. P. M."
Logeman Bros. Co., Milwaukee, Wis.
Lourie—Lourie Mfg. Co., Springfield, Ill.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Tomlin-Harris Machine Co., Cordele, Ga.
Watson-Stillman Co., The, New York, N. Y.
Zelnicker, Walter A., Supply Co., St. Louis, Mo.

PRESSES, WIPING WASTE.

Economy Baler Co., Ann Arbor, Mich.
Nugent, Wm. & Co., Chicago, Ill.
Strong's Economy—The Strong Machinery & Supply Co., New York, N. Y.

PRICE BOOKS, PLUMBERS'.

Bareham & Saunders, Rochester, N. Y.
Bradford, Wm. A., Quincy, Mass.
Clow, James B., & Sons, Chicago, Ill.
Leader—Leader Specialty Co., Inc., Indianapolis, Ind.
Standard Sanitary Mfg. Co. Pittsburgh, Pa.

PRIMERS, BLOW TORCH.

Carleton—The Carleton Co., Cambridge, Mass.

PRIMERS, CENTRIFUGAL PUMP.

Apco—The Automatic Primer Co., Chicago, Ill.
Barrett, Haentjens & Co., Hazleton, Pa.
Blakeslee Mfg. Co., DuQuoin, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.

PRONGS, VALVE.

Columbus Brass Co., Columbus, Ohio.
Hays Mfg. Co., Erie, Pa.
Lord—The C. H. Yonts Co., Meadville, Pa.

PROTECTORS, BLOW-OFF.

Mather, Edmund, Co., Harrisburg, Pa.

PROTECTORS, BOILER GIRTH SEAM.

National—National Boiler Protector Co., Dayton, O.

PROTECTORS, EYE AND FACE, FOR INDUSTRIAL WORKERS.

Adjustoglas—The Safety Equipment Service Co., Cleveland, Ohio.
Autocrat—American Thermo-Ware Co., New York, N. Y.
Chicago Eye Shield Co., Chicago, Ill. (Trade names —Acme, Essentialite.)
Fox—Fox Supply Co., Brooklyn, Wis.
Fits U—Grammes & Sons, L. F., Allentown, Pa.
Gross, William M., Co., Sharon, Pa.
Ideal Face Shield Co., The, Columbus, O.
Standard Safety Equipment Co., Chicago, Ill.
Willson Goggles, Inc., Reading, Pa. "Willson," "Underwriters," "Industro."

PROTECTORS, FOOT AND LEG, FOR FOUNDRYMEN

Graton & Knight Co., Worcester, Mass.
Gross, William M., Co., Sharon, Pa.
Holcomb Safety Garment Co., Chicago, Ill.
Horstmann, Wm. H., Co., Philadelphia, Pa.
Pulmosan Safety Equipment Co., Brooklyn, N. Y.
Safety Equipment Service Co., The, Cleveland, O.
Safety First Shoe Co., Boston, Mass.
Standard Safety Equipment Co., Chicago, Ill.
Wheeler, F. H., Mfg. Co., Chicago, Ill.

PROTECTORS, GAGE GLASS.

(See "Glass Preservers, Gage" and "Washers, Gage Glass.")

PROTECTORS, GAGE GLASS, LOCOMOTIVE.

Keckley, O. C., Company, Chicago, Ill. "S. S. P."
Ohio Injector Co., The, Wadsworth, O.

PROTECTORS, HEAD, FOR BLAST FURNACE WORKERS.

C. E. S. Co.—Chicago Eye Shield Co., Chicago, Ill.
Gross, William M., Co., Sharon, Pa.
Ideal—The Ideal Face Shield Co., Columbus, O.
Pulmosan Safety Equipment Co., Brooklyn, N. Y.
Standard Safety Equipment Co., Chicago, Ill.
Willson Goggles, Inc., Reading, Pa.

PROTECTORS, SET SCREW, RUBBER.

Canfield—H. O. Canfield Co., Bridgeport, Conn.

PROTECTORS, TAG.

Heckman Tool & Mfg. Co., Chicago, Ill. "Heckman."

PROTECTORS, THREAD.

H. C. Atkins Mfg. Co., St. Louis, Mo.

PROTRACTORS.

Besly, Chas. H. & Co., Chicago, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Goodell-Pratt Co., Greenfield, Mass. (hand and machine).
Starrett, L. S., Co., Athol, Mass. (draftsmen's and universal bevel).
Union Tool Co. Orange Mass. (Bevel.) "Shaver."

PROVERS, GAS AND WATER METER.

Equitable Meter Co., Pittsburgh, Pa. (Trade names —Emco, Equitable.)
Pittsburgh Meter Co., Pittsburgh, Pa.
Standard Meter Co., The, Philadelphia, Pa.

PULLERS, CAR.

Caldwell, H. W., & Son Co., Chicago, Ill.
Gifford-Wood Co., Hudson, N. Y.
Handy Man—Fridy Hoist & Machinery Co., Mountville, Pa.
Link-Belt Company, Chicago, Ill.
National Hoisting Engine Co., Harrison, N. J.
S-A—Stephens-Adamson Mfg. Co., Aurora, Ill.
Silent Hoist Winch and Crane Co., The, Brooklyn, N. Y.
Temple—Mine Safety Appliances Co., Pittsburgh, Pa. (mine).
Weller Mfg. Co., Chicago, Ill.
Wolf Company, The, Chambersburg, Pa.

PULLERS AND REPLACERS, FUSE.

Martindale Electric Co., Cleveland, Ohio.
Trico Fuse Mfg. Co., Milwaukee, Wis.

PULLERS, GAGE HAND.

Lonergan—J. E. Lonergan Co., Philadelphia, Pa.

PULLERS, MINE POST.

Temple—Mine Safety Appliances Co., Pittsburgh, Pa.

PULLERS, NAIL AND SPIKE.

Bridgeport Hardware Mfg. Co., Bridgeport, Conn. (Trade names—New Jumbo, Red Bull, Rex, Sure Grip, Tiger, Unbreakable.)
Bull Dog—L. F. Grammes & Sons, Allentown, Pa.
Diamond B, Neverslip, Belden—The Belden Machine Co., New Haven, Conn.
Goodell-Pratt Co., Greenfield, Mass.
Hercules—S. & I. Co., The, Springfield, Mass.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Irvington Mfg. Co., The, Irvington, N. J.
K. & B.—The Kilborn & Bishop Co., New Haven, Conn.

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The longest lived, easiest and fastest pulling nail extractor on the market, because of its straight arm pull, rolling fulcrum and scientific construction.

Chas. Morrill, Inc., 98 Lafayette St., New York

Morrill, Apex, Cyclone, Pearson—Chas. Morrill, New York, N. Y.
Pullsemstraight—The American Hinge Co., St. Louis, Mo.
Red Devil—Smith & Hemenway Co., Irvington, N. J.
Sampson—L. F. Grammes & Sons, Allentown, Pa.
Union Hardware Co. Torrington, Conn. "Cyclops."
Verona Tool Wks., Pittsburgh, Pa.
Warwood—Warwood Tool Co., Wheeling, W. Va.

PULLERS, STAPLE.

Dasco—Damascus Steel Products Co., Rockford, Ill.
Irvington Mfg. Co., The, Irvington, N. J.
M. & M.—Maxson & Maxson Co., West Edmeston, N. Y.
Utica—Utica Drop Forge & Tool Co., Utica, N. Y.
V. & B.—Vaughan & Bushnell Mfg. Co., Chicago, Ill

PULLERS, WHEEL, GEAR AND BEARING.

Continental Auto Parts Co., Columbus, Ind.
Crane Puller Co., Arlington, Mass.
Duff Manufacturing Co., The, Pittsburgh, Pa.
Greb—Greb Company, The, Boston, Mass.
Little Giant, Big Buster—**Premier Electric Co., Chicago, Ill.**
Mossberg Pressed Steel Corp., Attleboro, Mass.

PULLEY COVERING OR LAGGING.

(See "Covering, Pulley.")

PULLEYS, AWNING

Wilcox, Crittenden & Co., Inc., Middletown, Conn.

PULLEYS, BALL BEARING.

Daggett—Chicago Pulley & Shafting Co., Chicago, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
S. K. F.—S. K. F. Industries, Inc., New York, N. Y.
Transmission Ball Bearing Co., Buffalo, N. Y.
Weller Mfg. Co., Chicago, Ill.
Wood, T. B., Sons Co., Chambersburg, Pa. "Wood-Fafnir."

PULLEYS, BOARD DROP HAMMER.

Gilbert—Saginaw Mfg. Co., Saginaw, Mich.

PULLEYS, CAST IRON.

Allis-Chalmers Co., Milwaukee, Wis.
American Tool & Machine Co., Boston, Mass.
Barnard & Leas Mfg. Co., Moline, Ill.
Barnard Mfg. Co., Spokane, Wash.
Belden Machine Co., The, New Haven, Conn. "Diamond B," "Neverslip."
Birkle Machine Works, Chicago, Ill.
Bond Foundry & Machine Co., Manheim, Pa.
Brightman Machine Co., The, Cleveland, O.

DEPENDABLE
AWNING PULLEYS
Cast Iron
Hot Galvanized or Japanned

Single
Fig. 074—Japanned
Fig. 0174—Hot Galvanized

Double
Fig. 076—Japanned
Fig. 0176—Hot Galvanized

Single made for ½, ⅝, ¾, 1, 1¼, 1½, 1¾, 2 and 2½" diameter sheave. Double made for ¾, 1, 1¼, 1½, 1¾, 2 and 2½" diameter sheave.
Also furnished with Swivel Eye.
All Galvanized by the Durable Hot Process.

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Established 1847

Brown Co., The A. & F., Elizabethport, N. J.
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Builders Iron Foundry, Providence, R. I.
Caldwell & Son Co., H. W., Chicago, Ill.
Caldwell, W. E., Co., Louisville, Ky.
Chain Belt Co., Milwaukee, Wis.
Chicago Die Casting Mfg. Co., Chicago, Ill. (small sizes).
Chicago Pulley & Shafting Co., Chicago, Ill.
C. M. C.—Christiana Machine Co., Christiana, Pa.
Concord Foundry and Machine Co., Concord, N. H.
Cresson-Morris Co., Philadelphia, Pa.
Diamond Iron Works, Minneapolis, Minn.
Dodge Standard—Dodge Mfg. Corp., Mishawaka, Ind.
Dow, L. B., Inc., Keene, N. H.
Eastwood Co., Benjamin, Paterson, N. J.
Falls—Falls Clutch & Machinery Co., Kent, O.
Fritz, Geo. J., Foundry & Machine Co., St. Louis, Mo.
Golden's Foundry & Machine Co., Columbus, Ga.
Great Western Mfg. Co., Leavenworth, Kan.
Hanson Clutch & Machinery Co., Tiffin, O.
Henderson, W. K., Iron Works & Supply Co., Shreveport, La.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Hunter Machine Co., James, North Adams, Mass.
Huntsville Foundry & Machine Works, Huntsville, Ala.
Jeffrey Mfg. Co., The, Columbus, O.
J. & L.—Jones & Laughlin Steel Co., Pittsburgh, Pa.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Lawton, C. A., Co., The, De Pere, Wis.
Lindahl Machine Co., Henry, Chicago, Ill.
Link-Belt Co., Chicago and Philadelphia.
Lombard Iron Works & Supply Co., Augusta, Ga.
Marion Machine, Foundry & Supply Co., Marion, Ind.
Mecklenburg Iron Works, Charlotte, N. C.
Medart Company, The, St. Louis, Mo.
Mesta Machine Co., Pittsburgh, Pa.
Moore & White Co., The, Philadelphia, Pa.
National—National Foundry & Mfg. Co., Williamsport, Pa.
Naylor Bros., Peekskill, N. Y.
Nordyke & Marmon Co., Indianapolis, Ind.
O. K.—O. K. Clutch & Machinery Co., Columbus, Pa.
Prescott Co., The, Menominee, Mich.
Reading Scale & Machine Co., Reading, Pa.
Red Devil—Smith & Hemenway Co., Inc., Irvington, N. J.
Red Face—Pyott Foundry Co., Chicago, Ill.
Richards-Wilcox Mfg. Co., Aurora, Ill.
Royersford Foundry & Machine Co., Philadelphia, Pa.
Schofield, J. S., Iron Works, Macon, Ga.
Schultz, A. L., & Son, Chicago, Ill.
Sellers, William & Co., Inc., Philadelphia, Pa.
Smith, Winfield H., Springville, Erie Co., N. Y (small).
Stephens-Adamson Mfg. Co., Aurora, Ill.
Townsend Furnace & Machine Co., Albany, N. Y.
Upton & Gilman Machine Co., Lowell, Mass.
Valley Iron Works, **Williamsport, Pa.**
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wheland—Wheland Co., The, Chattanooga, Tenn.
Wolf Co., The, Chambersburg, Pa.
Wood, T. B., Sons Company, Chambersburg, Pa.

PULLEYS, CAST IRON, STEEL RIM.

Medart Company, The, St. Louis, Mo.

PULLEYS, CORK INSERT.

American—American Pulley Co., Philadelphia, Pa.
Carey, W. W. Co., Lowell, Mass.
Cork Insert Company, The, Boston, Mass.
Keystone—Dodge Mfg. Corp., Mishawaka, Ind.
Ohio Valley Pulley Works, Inc., Maysville, Ky. "Limestone."
Wood, T. B., Sons, Company, Chambersburg, Pa.

PULLEYS, DYNAMO.

(See "Pulleys, Motor.")

PULLEYS, DRUM, FOR CONVEYORS, ETC.

American Pulley Company, Philadelphia, Pa.
Caldwell, H. W., & Son Co., Chicago, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Limestone—The Ohio Valley Pulley Works, Inc., Maysville, Ky.
Link-Belt Company, Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
Weller Mfg. Co., Chicago, Ill.
Wheland Company, The, Chattanooga, Tenn.
Wood, T. B., Sons Company, Chambersburg, Pa.

PULLEYS, FLANGED.

American Tool & Machine Co., Boston, Mass.
American—American Pulley Co., Philadelphia, Pa.
Birkle Machine Works, Chicago, Ill.
Brown, A. & F., Co., The, Elizabethport, N. J.
Caldwell, H. W., & Son Company, Chicago, Ill.
Chicago Die Casting Mfg. Co., Chicago, Ill. (small sizes).
Chicago Pulley & Shafting Co., Chicago, Ill.
Excelsior Pulley Co., Cuba, N. Y.
Falls—Falls Clutch & Machinery Co., Kent, O.
Hanson Clutch & Machinery Co., Tiffin, O.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Keystone—Dodge Mfg. Corp., Mishawaka, Ind.
Lawson—Menasha Wood Split Pulley Co., Menasha, Wis.
Limestone—Ohio Valley Pulley Works, Inc., Maysville, Ky.
Link-Belt Company, Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
Prescott Co., The, Menominee, Mich.
Red Face—Pyott Foundry Co., Chicago, Ill.
The Reeves—Reeves Pulley Co., Columbus, Ind.
Saginaw Mfg. Co., Saginaw, Mich.
Valley Iron Works, Williamsport, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wheland Company, The, Chattanooga, Tenn.
Wood, T. B., Sons Company, Chambersburg, Pa.

PULLEYS, FLY WHEEL.

(See Wheels, Fly.)

PULLEYS, FRICTION CLUTCH.

American Tool & Machine Co., Boston, Mass.
Appleton—Appleton Mfg. Co., Batavia, Ill.
Baird Machine Co., The, Bridgeport, Conn.
Bierman—Strite Governor Pulley Co., Minneapolis, Minn.
Bond Foundry & Machine Co., Manheim, Pa.
Brightman Machine Co., The, Cleveland, O.
Brown & Sharpe Mfg. Co., Providence, R. I.
B & C—Dodge Mfg. Corp., Mishawaka, Ind.
Caldwell, H. W., & Son Co., Chicago, Ill.
Caldwell, W. E., Co., Louisville, Ky.
Chicago Pulley & Shafting Co., Chicago, Ill.
Conway Clutch Co., Cincinnati, O.
Cowanesque Valley Iron Works, Cowanesque, Pa. "Rieppel's."
Cresson-Morris Co., Philadelphia, Pa.
Dodge—Dodge Mfg. Corp., Mishawaka, Ind.
Eastern Machinery Co., New Haven, Conn.
Edgemont—The Edgemont Machine Co., Dayton, O.

Erie Clutch & Pulley Co., Erie, Pa. "Standard."
Falls—Falls Clutch & Machinery Co., Kent, O.
Farrar & Trefts, Buffalo, N. Y.
Gund Mfg. Co., La Crosse, Wis.
Hanson—The Hanson Clutch & Machinery Co., Tiffin, Ohio.
Havana Double Grip—Havana Mfg. Co., Havana, Ill.
Herken, Jr.—Minster Machine Co., Minster, O.
Hill (Smith Type) — The Hill Clutch Machine & Foundry Co., Cleveland, O.
Holland Engine Co., Inc., Holland, Mich
Hunt—Rodney Hunt Machine Co., Orange, Mass
James Hunter Machine Co., North Adams, Mass. "Hunter."
Jeffrey Mfg. Co., Columbus, O. "Jeffrey."
Kinney Mfg. Co., Boston, Mass. "Competitor," "Interchange," "Oil Tight."
Lawton, C. A. Co., The, De Pere, Wis.
Lemley—W. A. Jones Foundry & Machine Co., Chicago, Ill.
Lindahl, Henry, Machine Co., Chicago, Ill.
Link-Belt Company, Chicago and Philadelphia.
List, E. J., Mfg. Co., Havana, Ill.
McMahon & Co., Worcester, Mass.
Mason, Volney W., & Co., Inc., Providence, R. I.
Medart Company, The, St. Louis, Mo.
Menasha Clutch Pulley & Machinery Co., Menasha, Wis.
Moore & White Co., The, Philadelphia, Pa.
Moore-Master Mfg. Co., Chicago, Ill.
Naylor Bros., Peekskill, N. Y.
O. K.—O. K. Clutch & Machinery Co., Columbus, Pa.
Prescott Co., The, Menominee, Mich.
The Reeves—Reeves Pulley Co., Columbus, Ind.
Rockwood Mfg. Co., The, Indianapolis, Ind.
S. K. F. Industries, Inc., New York, N. Y.
Schultz, A. L., & Sons, Chicago, Ill.
Sinclair-Scott Co., The, Baltimore, Md.
Smith Type Hill—The Hill Clutch Machine & Foundry Co., Cleveland, O.
Standard—Erie Clutch & Pulley Co., Erie, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Twin Disc Clutch Co., Racine, Wis.
Valley Iron Works, Williamsport, Pa.
Weller Mfg. Co., Chicago, Ill.
Wolf Co., Chambersburg, Pa.
Wood, T. B., Sons Company, Chambersburg, Pa.

PULLEYS, GOVERNOR.

Brown, A. & F., Co., Elizabethport, N. J.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Strite—Strite Governor Pulley Co., Minneapolis, Minn.
Wood, T. B., Sons Company, Chambersburg, Pa.

PULLEYS, GUIDE OR GALLOWS.

American Tool & Machine Co., Boston, Mass.
Brown, A. & F., Co., Elizabethport, N. J.
Dodge Mfg. Corp., Mishawaka, Ind.
Falls—Falls Clutch & Machinery Co., Kent, O.
Hanson Clutch & Machinery Co., Tiffin, Ohio.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Medart Company, The, St. Louis, Mo.
Wheaton, C. M., Providence, R. I.
Wood, T. B., Sons Company, Chambersburg, Pa.

PULLEYS, LEATHER RIM.

Belt Grip—Buffalo Pulley & Caster Co., Inc., Buffalo N. Y.

PULLEYS, LOOSE.

American Tool & Machine Co., Boston, Mass.
American—American Pulley Co., Philadelphia, Pa.
Arguto—Arguto Oilless Bearing Co., Wayne Junction, Pa. (Bearings.)
Barnard & Leas Mfg. Co., Moline, Ill.
Best Pulley Mfg. Co., St. Louis, Mo.
Birkle Machine Works, Chicago, Ill.
Brown, A. & F., Co The, Elizabethport, N. J.
Chapman—Transmission Ball Bearing Co., Buffalo, N. Y.
Daggett, S. K. F.—Chicago Pulley & Shafting Co., Chicago, Ill.
Dodge Mfg. Corp., Mishawaka, Ind. "Dodge," "Dodge-Timken," "Keystone."
Falls Clutch & Machinery Co., Kent, O.
Gilbert—Saginaw Mfg. Co., Saginaw, Mich.
Hanson Clutch & Machinery Co., Tiffin, Ohio.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Hunter Machine Co., James, North Adams, Mass
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Lasure Friction Clutch Co., Watertown, Wis.
Lewellen Mfg. Co., Columbus, Ind. (Ball bearing.)
Limestone—Ohio Valley Pulley Works, Inc., Maysville, Ky.
Lindahl, Henry, Machine Co., Chicago, Ill.
Medart Company, The, St. Louis, Mo.
National—National Foundry & Mfg. Co., Williamsport, Pa.
Red Face—Pyott Foundry Co., Chicago, Ill.
The Reeves—Reeves Pulley Co., Columbus, Ind.
S. K. F. Industries, Inc., New York, N. Y.
Valley Iron Works, Williamsport, Pa.
Webster Mfg. Co., Chicago, Ill.
Wheland Company, The, Chattanooga, Tenn.
Wilmarth & Morman Co., Grand Rapids, Mich.
Wood, T. B., Sons Company, Chambersburg, Pa. "Wood," "Wood-Fafnir."

PULLEYS, MAGNETIC.

C.-H.—Cutler-Hammer Mfg. Co., Milwaukee, Wis.
C.-H.—Dings Magnetic Separator Co., Milwaukee, Wis.
Magnetic Mfg. Co., Milwaukee, Wis. "High Duty."

PULLEYS, MOTOR.

American—American Pulley Co., Philadelphia, Pa.
American Tool & Machine Co., Boston, Mass.
Birkle Machine Works, Chicago, Ill.
Brown, A. & F., Co., The, Elizabethport, N. J.
Browning—The Ohio Valley Pulley Works, Inc Maysville, Ky.
Caldwell, H. W., & Son Co., Chicago, Ill.
Carey, W. W., Co., Lowell, Mass.
Chicago Pulley & Shafting Co., Chicago, Ill.
Falls—Falls Clutch & Machinery Co., Kent, O.
Gilbert—Saginaw Mfg. Co., Saginaw, Mich.
Hanson Clutch & Machinery Co., Tiffin, Ohio.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Keystone—Dodge Mfg. Corp., Mishawaka, Ind.
Lasure Friction Clutch Co., Watertown, Wis.
Lawson—The Menasha Wood Split Pulley Co., Menasha, Wis.
Link-Belt Company, Chicago, Ill.
Medart Company, The, St. Louis, Mo.
The Reeves—Reeves Pulley Co., Columbus, Ind.
Rockwood Mfg. Co., The Indianapolis, Ind.
Valley Iron Works, Williamsport, Pa.
Wood, T. B., Sons Company, Chambersburg, Pa.

PULLEYS AND WHEELS, PAPER.

Best Pulley Mfg. Co., St. Louis, Mo.
Birkle Machine Works, Chicago, Ill.
Browning—The Ohio Valley Pulley Works, Inc., Maysville, Ky.
Pultex Mfg. Co., The, Cleveland, O.
Rockwood—The Rockwood Mfg. Co., Indianapolis Ind.

PULLEYS, ROLLER BEARING.

S. K. F. Industries, Inc., New York, N. Y.

PULLEYS, ROPE.

(See Sheaves, Rope.)

PULLEYS, SPLIT, CAST IRON.

(See "Pulleys, Cast Iron.")

PULLEYS, STEEL RIM.

Dodge Mfg. Corp., Mishawaka, Ind.
Hercules—The Medart Co., St. Louis, Mo.

PULLEYS, STEEL, SPLIT.

American—American Pulley Co., Philadelphia, Pa.
Barry—Barry Co., Muscatine, Ia.
Dick, R. & J., Co., Inc., Passaic, N. J. "Barry."
Hercules—The Medart Company, St. Louis, Mo.
Keystone, National, Oneida—Dodge Mfg. Corp., Mishawaka, Ind.
Philips Pressed Steel Pulley Works, Philadelphia, Pa
Wolf Co., The, Chambersburg, Pa.
Worcester Pressed Steel Co., Worcester, Mass.

PULLEYS, STEP AND TAPER CONE.

American Tool & Machine Co., Boston, Mass.
Birkle Machine Works, Chicago, Ill.
Brown, A. & F., Co., The, Elizabethport, N.. J.
C. M. C.—Christiana Machine Co., Christiana, Pa.
Chicago Pulley & Shafting Co., Chicago, Ill.
Dodge Mfg. Corp., Mishawaka, Ind.
Excelsior Pulley Co., Cuba, N. Y.
Falls—Falls Clutch & Machinery Co., Kent, O.
Gilbert—Saginaw Mfg. Co., Saginaw, Mich.
Hanson Clutch & Machinery Co., Tiffin, O.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Lawson—Menasha Wood Split Pulley Co., Menasha, Wis.
Lawton, C. A., Co., The, De Pere, Wis.
Medart Company, The, St. Louis, Mo.
Ohio Valley Pulley Wks., Inc., Maysville, Ky. "Limestone."
The Reeves—Reeves Pulley Co., Columbus, Ind.
Smith, Winfield H., Springville, Erie Co., N. Y. (small).
Wood, T. B., Sons Company, Chambersburg, Pa.

CHICAGO PULLEY & SHAFTING COMPANY

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Chicago, Ill.

Power Transmitting Appliances

Chicago, Illinois

FACTORY:
Menomonee Falls,
Wisconsin

Products

The CHICAGO LINE, manufactured by the Chicago Pulley and Shafting Company, is a complete line of Power Transmitting Appliances, including many up-to-date trouble and power saving specialties, such as Ball Bearing Hangers, Pulleys, Countershafts, Friction Clutches, Belt Tighteners, Pillow Blocks, Idlers, etc.

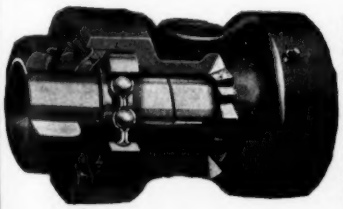
Hangers

The CHICAGO LINE Hangers are of the well-known 4 Pt. Universal Construction having both vertical and horizontal adjustment.

Our Cast Iron Hangers are of great strength, generously babbitted and of pleasing design, furnished with Plain Oiling, Wick Oiling and Duplex Oiling Bearings.

Our Steel Hanger is but one - third the weight of cast hangers and has double the strength. Both type hangers can be supplied with Ball Bearings, Roller Bearings, or Babbitted Journals.

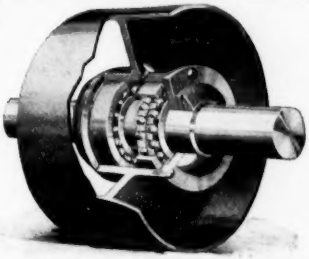
Hanger Boxes



The CHICAGO LINE Ball Bearing Hanger Box removes the last objection to Ball Bearings, for line and countershaft use. It is of heavy duty construction and will fit all types of hanger frames. Furnished in all standard sizes. No trouble to install, simply tighten one set screw.

Pulleys

The DAGGETT Ball Bearing Loose Pulley eliminates the loose pulley troubles prevalent in practically every plant where loose pulleys are used. Its use in connection with Countershafts, Friction Clutches, Mule Stands, Belt Tighteners, Idlers, etc., is common, and practically every sale brings repeat orders.



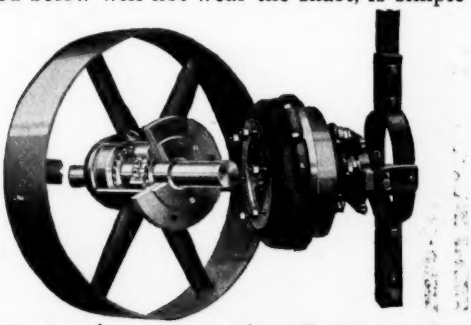
The CHICAGO LINE Cast Iron Machine Moulded Pulleys, Solid and Split, are made from new patterns, correct in design and well balanced. In addition to regular pulleys, we are exceptionally well equipped to furnish special designed pulleys for machine purposes.

Ball Bearing Friction Clutch Pulley

A friction clutch pulley designed and guaranteed to carry any belt load at any speed without bearing trouble.

Drive buffing lathes, emery and disk grinders, fans, punch presses, etc., direct from lineshaft with a ball bearing friction clutch pulley and save power, belts, lubricant, time and trouble.

The ball bearing friction clutch pulley illustrated below will not wear the shaft, is simple



in construction, easy to install and requires less space on the shaft than ordinary clutches.

The ball bearings are dustproof, and the lubricant chamber needs refilling but from two to four times a year, according to conditions.

GILBERT Wood Pulleys

Distinctive in Design Material Workmanship Reputation Service

They Succeed Where Other Pulleys Fail

A Complete Line

Including Motor Pulleys, Rope Pulleys, Flange Pulleys, Loose Pulleys, Iron Center Pulleys, Taper and Step Cone Pulleys, Main Drive Pulleys, and Standardized Wood Bushings.

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SAGINAW, MICH.

PULLEYS, TEXTILE, SPECIAL.

Ohio Valley Pulley Works, Inc., Maysville, Ky.
The Reeves—Reeves Pulley Co., Columbus, Ind.

PULLEYS, VARIABLE SPEED.

Horton—Horton Manufacturing Co., Minneapolis, Minn.,

PULLEYS, WOOD RIM, IRON CENTER.

Carey, W. W. Co., Lowell, Mass.
Compressed Spruce Products Co., Tacoma, Wash.
Dodge Mfg. Corp., Mishawaka, Ind. "Dodge."
Erie Clutch & Pulley Co., Erie, Pa. "Tornado."
Falls—Falls Clutch & Machinery Co., Kent, O.
Lawson—Menasha Wood Split Pulley Co., Menasha, Wis.
Limestone—Ohio Valley Pulley Wks., Inc., Maysville, Ky.
Medart Company, The, St. Louis, Mo.
Reading Wood Pulley Co., Reading, Pa. "Reading Iron Center."
The Reeves—Reeves Pulley Co., Columbus, Ind.
Saginaw Mfg. Co., Saginaw, Mich. "Gilbert."

PULLEYS, WOOD, SPLIT.

Chicago Pulley & Shafting Co., Chicago, Ill.
Eclipse Wood Pulley Co., Berlin, Pa. "Eclipse."
Erie Clutch & Pulley Co., Erie, Pa. "Tornado."
Estes, E. B., & Sons, New York, N. Y. (Small.)
Excelsior Pulley Co., Inc., Cuba, N. Y. "Excelsior."
Forster—John M. Forster Co., Rochester, N. Y.
Fritz, Geo. J., Foundry & Machine Co., St. Louis, Mo.
Gilbert—Saginaw Mfg. Co., Saginaw, Mich.
Independence, Keystone, Oneida—Dodge Mfg. Corp., Mishawaka, Ind.
Lawson—The Menasha Wood Split Pulley Co., Menasha, Wis.
Limestone—The Ohio Valley Pulley Works, Inc., Maysville, Ky.
Medart Company, The, St. Louis, Mo.
Miller Machine Works, Springs, Pa.
Oneida Wood Pulley Co., Inc., Oneida, N. Y.
Portland—Portland Pulley Co., Portland, Ore.
The Reeves—Reeves Pulley Co., Columbus, Ind.
Universal—Reading Wood Pulley Co., Reading, Pa.

PULLS, BELL.

Peck, Stow & Wilcox Co., Southington, Conn.
Powell Co., The, Wm., Cincinnati, O.
Wilcox, Crittenden & Co., Middletown, Conn.
Yale & Towne Mfg. Co., New York, N. Y.

PULLS, CLOSET CHAIN.

American Brass & Copper Co., The, New York, N. Y.
Always Reliable—Otto Bernz, Newark, N. J.
C. & D.—Coyne & Delany Co., Brooklyn, N. Y.
China—Thomas Maddock's Sons Co., Trenton, N. J.
Em-Ess—The Meyer-Sniffen Co., New York, N. Y.
Frank Bros., New York, N. Y.
Garrison-Heiland Corp., New York, N. Y.
Hutter, Karl, Inc., New York, N. Y. (porcelain).
Kupferle, John C., Foundry Co., St. Louis, Mo.
Mott, J. L., Iron Works, Trenton, N. J.
Russell, John M., Mfg. Co., Inc., Naugatuck, Conn.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Silicocks-Miller Co., The, So. Orange, N. J. (Trade names—Celluvarno, Simco.)
Smith & Egge Mfg. Co., Bridgeport, Conn.

PUMP JACKS.

American-Blakeslee Mfg. Co., Birmingham, Ala.
Badger, Wisconsin—Wisconsin Foundry & Machine Co., Madison, Wis.
Baker Mfg. Co., Evansville, Wis. "Monitor."
Cow Boy—The Mundie Mfg. Co., Peru, Ill.
Cullman Wheel Co., Chicago, Ill. (electric).
Davis-Hansen Pump Co., Oshkosh, Wis.
Dempster Mill Mfg. Co., Beatrice, Neb.
Flint & Walling Mfg. Co., Kendallville, Ind. "Hoosier."
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
Handy—Fairbanks, Morse & Co., Chicago, Ill.
Hayes—Hayes Pump & Planter Co., Galva, Ill.
Heller-Aller Co., The, Napoleon, O.
Hill Pump & Turbine Works, Anderson, Ind.
Humphryes Mfg. Co., The, Mansfield, O.
Ideal—Fairbanks, Morse & Co., Chicago, Ill.
Jumbo—Nelson Bros. Co., Saginaw, Mich.
Kerrihard Co., Red Oak, Ia.
Roper, Geo. D., Corp., Rockford, Ill.
Lone Star—Axtell Co., Ft. Worth, Tex.
McEwen Mfg. Company, Tulsa, Okla.
Myers, F. E., & Bro. Co., Ashland, O. (Trade names—Triumph Senior, Triumph Junior.)
Norris, W. C., Tulsa, Okla.
Red Jacket—Red Jacket Mfg. Co., Davenport, Iowa.
Reliance—American Scale Co., Kansas City, Mo.
San Antonio Machine & Supply Co., San Antonio, Tex. "Duplex," "Sanisco."
Spang—Spang & Co., Butler, Pa. (For oil wells.)
Star Pointer Pump Mfg. Co., Menasha, Wis.
Trahern Pump Co.—Div. Geo. D. Roper Corp., Rockford, Ill.
United Engine Co., Lansing, Michigan.
Warlo—Ward-Love Pump Corp., Rockford, Ill.
Wistrand Mfg. Co., Galva, Ill.

PUMP SETS, FUEL OIL.

Beach-Russ Co., New York, N. Y.
Billow—National Supply Co., Chicago, Ill.
Blackmer Rotary Pump Co., Grand Rapids, Mich.
Condo-Vac—The Chicago Pump Co., Chicago, Ill.
Gwynn Engineering Co., Pittsburgh, Pa.
Hammel Oil Burning Equipment Co., Providence, R. I.
Kinney—Kinney Mfg. Co., Boston, Mass.
Leiman Bros., New York, N. Y.
Tate-Jones & Co., Inc., Leetsdale, Pa.

PUMPS, ACID.

Aldrich—Aldrich Pump Co., Allentown, Pa.
American-Marsh—American Steam Pump Co., Battle Creek, Mich.
American—American Well Works, Aurora, Ill.
Beach-Russ Co., New York, N. Y.
Blackmer Rotary Pump Co., Grand Rapids, Mich.
Buffalo Steam Pump Co., Buffalo, N. Y. "Buffalo."
Chemetal—Nassau Pump & Valve Co., Rockville Centre, N. Y.
Chicago Pump Co., Chicago, Ill.
Colco—The Lucas-Miner Pump Co., Dayton, O.
Davidson, M. T., Co., New York, N. Y.
Dayton-Dowd Co., Quincy, Ill.
Dean Hill Pump Co., Anderson, Ind.
Duriron—The Duriron Co., Inc., Dayton, O.
Economy Pumping Machinery Co., Chicago, Ill.
Gardner Governor Co., Quincy, Ill.
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
McGowan, John H., Co., The, Cincinnati, O.
Moloch Company, Kaukauna, Wis.
Price, G. W., Pump & Engine Co., San Francisco, Cal.
Resisto Pipe & Valve Co., East Cambridge, Mass. "Resisto."
Roper, Geo. D., Corp., Rockford, Ill. "Soo," "Trahern."
Roturbo—Manistee Iron Works Co., Manistee, Mich.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Union Steam Pump Co., Battle Creek, Mich.
United Lead Co., New York, N. Y.
Vogt Brothers Mfg. Co., Louisville, Ky.
Wagener Steam Pump Co., Canton, Ohio.
Worthington Pump & Machinery Corp., New York, N. Y.
Wright-Austin Co., Detroit, Mich.

PUMPS, AIR DRIVEN.

Union Steam Pump Co., Battle Creek, Mich.

PUMPS, AIR AND CIRCULATING.

American-Marsh—American Steam Pump Co., Battle Creek, Mich.
Chicago Pump Co., Chicago, Ill.
Clayton Air Compressor Works, New York, N. Y.
Connersville Blower Co., Connersville, Ind.
Davidson, M. T., Co., New York, N. Y.
Dean Hill Pump Co., Anderson, Ind.
Economy—Economy Pumping Mach. Co., Chicago, Ill.
Famous—Lucas-Miner Pump Co., Dayton, Ohio.
Gardner Governor Co., The, Quincy, Ill.
Garrett, W. D., & Co., New York, N. Y.
Hall Pump & Compressor Co., Pittsburgh, Pa.
Hancock Mfg. Co., Charlotte, Mich. (hand).
Kingsford Foundry & Machine Works, Oswego, N. Y.
McGowan Co., The John H., Cincinnati, O.
Mesta Machine Co., Pittsburgh, Pa.
Morris Machine Works, Baldwinsville, N. Y.
Myers—F. E. Myers & Bro., Ashland, O.
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Roturbo—Manistee Iron Works Co., Manistee, Mich.
Smith-Vaile—The Platt Iron Works Co., Dayton, O.
Terry Steam Turbine Co., Hartford, Conn.
Trane Company, The, La Crosse, Wis.
Twinvolute—The John H. McGowan Co., Cincinnati, Ohio.
Union Steam Pump Co., Battle Creek, Mich.
United Brass & Aluminum Mfg. Co., Port Huron, Mich.
Westinghouse—Westinghouse Electric & Mfg. Co., Philadelphia, Pa.
Worthington—Worthington Pump & Machinery Corp., New York.
Yeomans Bros. Co., Chicago, Ill.

PUMPS, AIR, ELECTRIC.

A. F. S. Machine Co., Toledo, Ohio.
American-Marsh—American Steam Pump Co., Battle Creek, Mich.
Automatic Electric Pump Co., Davenport, Ia.
Bishop & Babcock Co., The, Cleveland, O.
Cleveland Faucet Co., The, Cleveland, O.
Durite—The Lucas-Miner Pump Co., Dayton, O.
Economy Pumping Machinery Co., Chicago, Ill.
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
Leiman Bros., New York, N. Y.
McGowan Co., The John H., Cincinnati, O.
Quincy—Wall Pump & Compressor Co., Quincy, Ill.

PUMPS, AIR, POWER.

(See also "Compressors, Air.")

A. F. S. Machine Co., Toledo, O.
American-Marsh—American Steam Pump Co., Battle Creek, Mich.
Champion—The Cleveland Faucet Co., Cleveland, O.
Cleveland—Bishop-Babcock Co., Cleveland, O.
Cook, A. D., Inc., Lawrenceburg, Ind.
Crowell Mfg. Co., Brooklyn, N. Y.
Dean Bros. Steam Pump Works, Indianapolis, Ind.
Douglas, W. & B., Middletown, Conn.
Economy Pumping Machinery Co., Chicago, Ill.
Eureka—Bishop-Babcock Co., Cleveland, O.
Hall Pump & Compressor Co., Pittsburgh, Pa.
Harris Air Pump Co., Indianapolis, Ind.
Hoosier—Flint & Walling Mfg. Co., Kendallville, Ind.
Humphryes Mfg. Co., The, Mansfield, O.
Leader Iron Works, Decatur, Ill.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Manistee Iron Works Co., Manistee, Mich. "Roturbo."
Milwaukee Air Power Pump Co., Milwaukee, Wis.
New Lightning—Goulds Pumps, Inc., Seneca Falls, N. Y.
Roberts' Gem—The Geo. J. Roberts Co., Dayton, O.
Rumsey's—Rumsey & Co., Ltd., Seneca Falls, N. Y.
Smith-Vaile—The Platt Iron Works Co., Dayton, O.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Union Steam Pump Co., Battle Creek, Mich.
Vilter Mfg. Co., The, Milwaukee, Wis.
Vogt Brothers Mfg. Co., Louisville, Ky.
Westinghouse Leblanc—Westinghouse Electric & Mfg. Co., Philadelphia, Pa. (hydraulic).
Worthington Pump & Machinery Corp., New York, N. Y.

PUMPS, AIR, STEAM JET.

Evactor—Croll-Reynolds, Inc., New York, N. Y.
Radojet—C. H. Wheeler Mfg. Co., Philadelphia, Pa.

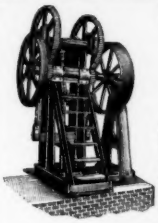
PUMPS, AIR LIFT.

Economy—Indiana Air Pump Co., Indianapolis, Ind.
Ingersoll-Rand Co., New York, N. Y.

PUMPS, AIR LIFT SEPARATORS, OR BOOSTERS.

American-Marsh—American Steam Pump Co., Battle Creek, Mich.
Boyts, Porter & Co., Connellsville, Pa.

For the well that is too deep,



or the service that is too heavy for ordinary pumps we commend to you

TRADE MARK DOWNIE REGISTERED U. S. PATENT OFFICE

DEEP WELL PUMPS

They are designed to lift large quantities of water from deep artesian wells. The Double-Stroke Geared Head with the DOWNIE CONICAL PLUNGER VALVES and two balanced lines of sucker rods, gives efficiency of 85 per cent. Double stroke steam and single stroke geared pumps for lighter duty.

We now build small double stroke heads to replace single stroke pumps on light work.

Also a line of Centrifugal Pumps. Catalog No. 6 describes pumps.

KEYSTONE DRILLER COMPANY

BEAVER FALLS, PA.

170 Broadway, New York Monadnock Block, Chicago Joplin, Mo.

Dean Bros. Steam Pump Works, Indianapolis, Ind.
Economy—Indiana Air Pump Co., Indianapolis, Ind.
Economy Pumping Machinery Co., Chicago, Ill.
Fairhurst—American Air Compressor Works, New York, N. Y.
Gardner Governor Co., The, Quincy, Ill.
Gem—Geo. J. Roberts Co., Dayton, O.
Smith-Vaile—Platt Iron Works, Dayton, O.

PUMPS, ARTESIAN OR DEEP WELL.

Allrite—Lucas-Miner Pump Co., Dayton, Ohio.
American—The American Well Works, Aurora, Ill.
Aurora Pump Co., Aurora, Ill.
Badger—Wisconsin Foundry & Machine Co., Madison, Wis.
Barnes Mfg. Co., The, Mansfield, O.
Blakeslee Mfg. Co., DuQuoin, Ill.
Boicourt—Midland Mfg. Co., Fort Worth, Texas.
Boyts, Porter & Co., Connellsville, Pa.
Buckeye—Mast, Foos & Co., Springfield, O.
Byron Jackson—Byron Jackson Pump Mfg. Co., Los Angeles, Cal.
Castle—A. M. Castle Engineering Co., La Crosse, Wis.
Century Pump Co., Brooklyn, N. Y.
Chicago Pump Co., Chicago, Ill.
Chicago Well Supply Co., Chicago, Ill.
Chippewa—Westco-Chippewa Pump Co., Davenport, Iowa.
Columbiana Pump Co., Columbiana, O.
Cook, A. D., Inc., Lawrenceburg, Ind.
Davidson, M. T. Co., New York, N. Y.
Davis-Hansen Pump Co., Oshkosh, Wis.
Dempster—Dempster Mill Mfg. Co., Beatrice, Neb.
Domestic—Domestic Engine & Pump Co., Shippensburg, Pa.
Darward Pump Co., San Francisco, Cal.
Dean Hill Pump Co., Anderson, Ind.
Douglas, W. & B., Middletown, Conn. "Douglas."
Downie—Keystone Driller Co., Beaver Falls, Pa.
Duplex—Duplex Mfg. Co., Superior, Wis.
Economy Pumping Machinery Co., Chicago, Ill.
Elton—Elton Company, Allentown, Pa.
Erb, W. B., Chicago, Ill.
Everite Pump & Mfg. Co., Lancaster, Pa. "Everite."
Farrar Pump & Machinery Co., St. Louis, Mo.
Foster Pump Works, Brooklyn, N. Y.
Goulds Pumps, Inc., Seneca Falls, N. Y. "Autowater."
Hayes Pump & Planter Co., Galva, Ill. "Hayes."
Hoosier—Flint & Walling Mfg. Co., Kendallville, Ind.
Hudson-Sharp Machine Co., Green Bay, Wis.
Kingsford Foundry & Machine Works, Oswego, N. Y.
Latta-Martin Pump Co., Hickory, N. C.
Leader Iron Works, Decatur, Ill.
Loane—Loane Engineering Co., Baltimore, Md.
Luitwieler Pumping Engine Co., Rochester, N. Y.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
McGowan, John H., Co., The, Cincinnati, Ohio. "McGowan."
Manistee Iron Works Co., Manistee, Mich. "Roturbo."
Marsh—American Steam Pump Co., Battle Creek, Mich.
Midland Mfg. Co., Fort Worth, Tex. "Boicourt."
Monarch—The Monarch Engineering Co., Dayton, Ohio.
Monitor—Humphreys Mfg. Co., Mansfield, O.
Multnomah—Multnomah Iron Works, Portland, Ore.
Murdock Pump Co., Indianapolis, Ind.
Myers, F. E., & Bro., Co., Ashland, O.
National Steam Pump Co., Upper Sandusky, Ohio.
Novo—Novo Engine Co., Lansing, Mich.
Park Mfg. Co., The, Charlotte, N. C.

Paul—Ft. Wayne Engineering & Mfg. Co., Ft. Wayne, Ind.
Price Pump & Engine Co., G. W., San Francisco, Cal.
Roper, Geo. D., Corp., Rockford, Ill. "Soo," "Trahern."
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Schramm—Schramm, Inc., West Chester, Pa.
Smith-Valle—The Platt Iron Works Co., Dayton, O.
Texas—Axtell Company, Ft. Worth, Tex.
Texas Mfg. Co., Fort Worth, Tex.
20th Century—Harris Air Pump Co., Indianapolis, Ind
Union Steam Pump Co., Battle Creek, Mich.
V. & K.—Valle & Kimes, Dayton, O.
Vogt Brothers Mfg. Co., Louisville, Ky.
Warlo—Ward-Love Pump Corp., Rockford, Ill.
Weinman Pump Mfg. Co., Columbus, O.
Worthington Pump & Machinery Corp., New York.

PUMPS, ASPHALT.

H. & B.—Hetherington & Berner, Indianapolis, Ind.
Kinney—Kinney Mfg. Co., Boston, Mass.
Moloch Company, Kaukauna, Wis.
Roper, Geo. D., Corp., Rockford, Ill. "Soo," "Trahern."
Taber Pump Co., Buffalo, N. Y.
Warren Bros. Co., Boston, Mass.

PUMPS, AUTOMOBILE TIRE.

Ace, Crown, Bridgeport—Bridgeport Brass Co., Bridgeport, Conn.
American-Marsh—American Steam Pump Co., Battle Creek, Mich.
A. F. S. Machine Co., The, Toledo, O.
B. N., Tapco—Burgess-Norton Mfg. Co., Geneva, Ill.
Baker-Hansen Mfg. Co., Oakland, Calif. "Baker Rotary."
Bell—The Bell Pump & Mfg. Co., Detroit, Mich.
Gardner Governor Co., Quincy, Ill.
Hartford Machine Screw Co., Hartford, Conn. "Master."
Manzel Brothers Co., Buffalo, N. Y.
Morgan Mfg. Co., Inc., Keene, N. H. "Morgan."
New Lightning—Goulds Pumps, Inc., Seneca Falls, N. Y.
Noera Mfg. Co., The, Waterbury, Conn.
Perko—Perkins Marine Lamp Co., Brooklyn, N. Y.
Pratt—Wm. E. Pratt Mfg. Co., Chicago, Ill.
Rose—Frank Rose Mfg. Co., Hastings, Neb.
Springfield—Shawver Co., Springfield, Ohio.
Turner Brass Works, The, Sycamore, Ill.
Union Steam Pump Co., Battle Creek, Mich.
U. S. Electrical Tool Co., Cincinnati, O.
Wagener Steam Pump Co., Canton, Ohio.
Yankee—A. F. S. Machine Co., Toledo, O.

PUMPS, BARREL.

Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
Groetken Pump Co., The, Aurora, Ill.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Monarch Mfg. Co., Council Bluffs, Iowa.
Marvel—Republic Steel Package Co., Cleveland, O.
Roper, Geo. D., Corp., Rockford, Ill. "Soo," "Trahern."
Sexton Can Co., Boston, Mass.
Warlo—Ward-Love Pump Corp., Rockford, Ill.
Wilson & Bennett Mfg. Co., Chicago, Ill.

PUMPS, BASIN OR LAVATORY.

Curtiss, J. H., Co., New York, N. Y.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Trenton Potteries Co., The, Trenton, N. J.
Wise, J. B., Inc., Watertown, N. Y.
Wolff Mfg. Corp., Chicago, Ill.
Woodward-Wanger Co., Philadelphia, Pa.

PUMPS, BILGE AND SEWAGE.

Abendroth & Root Mfg. Co., Newburgh, N. Y.
Ajax—W. & B. Douglas, Middletown, Conn.
Aldrich—Aldrich Pump Co., Allentown, Pa.
American-Marsh—American Steam Pump Co., Bat-Creek, Mich.
American—The American Well Works, Aurora, Ill.
Barnes Mfg. Co., The, Mansfield, O.
Berger Bros. Co., Philadelphia, Pa.
Blackmer Rotary Pump Co., Grand Rapids, Mich.
Blakeslee—Blakeslee Mfg. Co., DuQuoin, Ill.
Cataract—Joseph Edwards & Co., New York, N. Y.
C. H. & E. Manufacturing Co., Inc., Milwaukee (portable power).
Cramp, Wm., & Sons, Ship and Engine Building Co., The, Philadelphia, Pa.
Dayton-Dowd Company, Quincy, Ill.
Davidson, M. T., Co., New York, N. Y.
Diener, Geo., W., Mfg. Co., Chicago, Ill.
Domestic—Domestic Engine & Pump Co., Shippensburg, Pa.
Economy—Economy Pumping Machinery Co., Chicago, Ill.
Edson Mfg. Co., Boston, Mass.
Goulds Pumps, Inc., Seneca Falls, N. Y. "Goulds," "Deluge."
Haydenville Co., The, Haydenville, Mass.
Humphryes Mfg. Co., The, Mansfield, O.
Jenkins Mfg. Co., Bloomfield, N. J.
L-I—Chicago Pump Company, The, Chicago, Ill.
Latta-Martin Pump Co., Hickory, N. C.
Laughlin, Thomas, Co., Portland, Me.
McGowan—John H. McGowan Co., The, Cincinnati, Ohio.
McKnight Patent—Tranter Mfg. Co., Pittsburgh, Pa.
Marsh—American Steam Pump Co., Battle Creek, Mich.
Moloch Company, Kaukauna, Wis.
Morris Machine Works, Baldwinsville, N. Y.
Myers' Low Down—F. E. Myers & Bro. Co., Ashland, O.
National Marine Lamp Co., New York (hand).
Ohio Injector Co., The, Wadsworth, O.
Oil Well Supply Co., Pittsburg, Pa.
Quimby, Wm. E., Inc., Newark, N. J.
Roper, Geo. D., Corporation, Rockford, Ill.
Roturbo—Manistee Iron Works Co., Manistee, Mich.
Rumsey's Eagle—Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Stein's—John J. Stein & Son, Brooklyn, N. Y.
Superheater Co., The, New York, N. Y.
Swaby Mfg. Co., Chicago, Ill.
Torrent—W. & B. Douglas, Middletown, Conn.
Twinvolute—The John H. McGowan Co., Cincinnati, Ohio.
Union Steam Pump Co., Battle Creek, Mich.
Vogt Brothers Mfg. Co., Louisville, Ky.
Wade Iron Sanitary Mfg. Co., Chicago, Ill. "Wade."
Wagener Steam Pump Co., Canton, Ohio.
Well Pump Company, Chicago, Ill.
Weinman Pump Mfg. Co., Columbus, O.
Wilcox, Crittenden & Co., Middletown, Conn.
Worthington Pump & Machinery Corp. New York.
Yeomans Bros. Co., Chicago, Ill.

PUMPS, BOILER FEED.

Alberger—Alberger Pump & Condenser Co., New York.
Aldrich—Aldrich Pump Co., Allentown, Pa.
Allis-Chalmers Co., Milwaukee, Wis.
American-Marsh—American Steam Pump Co., Battle Creek, Mich.
American—The American Well Works, Aurora, Ill.
Blackmer Rotary Pump Co., Grand Rapids, Mich.
Boyts, Porter & Co., Connellsville, Pa.
Buffalo—Buffalo Steam Pump Co., Buffalo, N. Y.
Cameron—A. S. Cameron Steam Pump Works, New York, N. Y.
Canton-Hughes—Chalmers Pump & Mfg. Co., Lima, O.
Chicago Pump Co., Chicago, Ill.
Connellsville Machine & Car Co., Connellsville, Pa.
Coppus—Coppus Engineering Corp., Worcester, Mass.
Davidson, M. T., Co., New York, N. Y.
Dayton-Dowd Co., Quincy, Ill.
Dean Hill Pump Co., Anderson, Ind.
Douglas, W. & B., Middletown, Conn.
Du Bois—Du Bois Iron Works, Du Bois, Pa.
Durite—Lucas-Miner Pump Co., Dayton, Ohio.
Economy Pumping Machinery Co., Chicago, Ill.
Farnsworth Co., Norristown, Pa.
Foster Pump Works, Brooklyn, N. Y.
Fritz's Beam Doctor—Geo. J. Fritz Foundry & Machine Co., St. Louis, Mo.
Gardner—The Gardner Governor Co., Quincy, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Jamieson, M. W., & Co., Warren, Pa.
Jennings Hytor—Nash Engineering Co., So. Norwalk, Conn.
Lecourtenay Co., Newark, N. J.
Lucey Mfg. Corp., New York, N. Y. "Bull Dog."
Luitwieler Pumping Engine Co., Rochester, N. Y.
McGowan, John H., Co., The, Cincinnati, Ohio. "McGowan," "Twinvolute."
Moloch Company, Kaukauna, Wis.
Morris Machine Works, Baldwinsville, N. Y.
Myers—F. E. Myers & Bro. Co., Ashland, O.
National Steam Pump Co., Upper Sandusky, Ohio.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Odell Pump Corp., New York, N. Y.
Oil Well Supply Co., Pittsburg, Pa.
Park Mfg. Co., The, Charlotte, N. C.
Pittsburgh Valve Foundry & Construction Co., Pittsburgh, Pa.
Roper, Geo. D., Corp., Rockford, Ill. "Trahern."
Ross Heater & Mfg. Co., Buffalo, N. Y.
Roturbo—Manistee Iron Works Co., Manistee, Mich.
Rumsey's—Rumsey Pump Co., Ltd., Seneca Falls, N. Y
Sherwood Mfg. Co., Buffalo, N. Y.
Silent—Centrifugal Pump Co., New York, N. Y.
Superheater Co., New York, N. Y.
Terry—Terry Steam Turbine Co., Hartford, Conn.
Trane Co., The, LaCrosse, Wis.
Union Steam Pump Co., Battle Creek, Mich.
Vogt Bros. Mfg. Co., Louisville, Ky.
Wagener—Wagener Steam Pump Co., Canton, O.
Warren Steam Pump Co., Warren, Mass.

Weinman Pump Mfg. Co., The, Columbus, O.
Wilson-Snyder Mfg. Co., Pittsburgh, Pa.
Worthington Pump & Machinery Corp., New York
Wright-Austin Co., Detroit, Mich.
Young Pump Co., Michigan City, Ind.

PUMPS, BOILER TEST.

Dake Engine Co., Grand Haven, Mich. (hand).
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
Henderer's Sons, A. L., Wilmington, Del.
Hills-McCanna Co., Chicago, Ill.
Lovejoy Tool Works, Chicago, Ill.
Nathan Mfg. Co., New York, N. Y.
Rumsey—Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Star—Star Brass Mfg. Co., Boston, Mass.

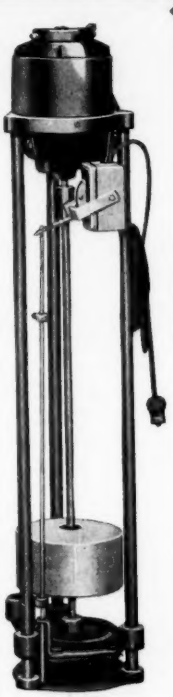
PUMPS, BRINE.
(See also "Pump, Steam.")

Aldrich—Aldrich Pump Co., Allentown, Pa.
American-Marsh—American Steam Pump Co., Battle Creek, Mich.
American—The American Well Works, Aurora, Ill.
Buffalo Steam Pump Co., Buffalo, N. Y.
Chicago Pump Co., Chicago, Ill. . .
Davidson, M. T., Co., New York, N. Y.
Dayton-Dowd Company, Quincy, Ill.
Economy Pumping Machinery Co., Chicago, Ill.
Foster Pump Works, Brooklyn, N. Y.
Gardner Governor Co., Quincy, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hill Pump & Turbine Works, Anderson, Ind.
Lucas-Miner Pump Co., Dayton, O. (Trade names—Alert, Bestyet, Famous).
Moloch Company, Kaukauna, Wis.
Morris Machine Works, Baldwinsville, N. Y.
McGowan—John H. McGowan Co., The, Cincinnati, Ohio.
Roper, Geo. D., Corp., Rockford, Ill. "Soo," "Trahern."
Rumsey—Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Trane Co., The, LaCrosse, Wis.
Tuthill Pump Co., Chicago, Ill.
Twinvolute—The John H. McGowan Co., Cincinnati, Ohio.
Union Steam Pump Co., Battle Creek, Mich. "Union."
Wagener Steam Pump Co., Canton, Ohio.
Worthington Pump & Machinery Corp., New York.

PUMPS, CELLAR DRAINER.
(See "Drainers, Cellar.")

PUMPS, CENTRIFUGAL AND TURBINE.
(See also "Pumps, Rotary.")

Alberger—Alberger Pump & Condenser Co., New York.
Allencliff Engineering Co., Columbus, O.
Allis-Chalmers Co., Milwaukee, Wis.
American-Marsh—American Steam Pump Co., Battle Creek, Mich.
American Well Works, The, Aurora, Ill. "American."
Ansonia—Ansonia Corporation, New York, N. Y.
Aurora Pump Co., Aurora, Ill.
Barber—King Brothers, Syracuse, N. Y. (with gas engine).
Beach-Russ Co., New York, N. Y.
Blackmer Rotary Pump Co., Grand Rapids, Mich.
Buffalo—Buffalo Steam Pump Co., Buffalo, N. Y.
Byron Jackson—Byron Jackson Pump Mfg. Co., Los Angeles, Cal.
C. H. & E. Manufacturing Co., Inc., Milwaukee, Wis.
Castle—A. M. Castle Engineering Co., La Crosse, Wis.
Cataract—Joseph Edwards & Co., New York, N. Y.
Centrifugal Pump Co., New York, N. Y.
Chicago Well Supply Co., Chicago, Ill.
Chicago Pump Co., Chicago, Ill.
Coppus—Coppus Engineering & Equipment Co., Worcester, Mass.
Cramp, Wm., & Sons, Ship & Engine Building Co., The, Philadelphia, Pa.
Dake—Dake Engine Co., Grand Haven, Mich.
Davidson—M. T. Davidson Co., New York, N. Y.
Dayton-Dowd Co., Quincy, Ill.
Dean Hill Pump Co., Anderson, Ind.
DeLaval—DeLaval Steam Turbine Co., Trenton, N. J.
Domestic—Domestic Engine & Pump Co., Shippensburg, Pa.
Douglas, W. & B., Middletown, Conn.
Downie—Keystone Driller Co., Beaver Falls, Pa.
Duriron (acid proof)—The Duriron Co., Inc., Dayton, Ohio.
Earle—Aldrich Pump Co., Allentown, Pa.
Economy—Economy Pumping Machinery Co., Chicago, Ill.
Erie Pump & Engine Works, Inc., Medina, N. Y.
Evinrude Unit—Evinrude Motor Co., Milwaukee, Wis.
Farrar Pump & Machinery Co., St. Louis, Mo.
Foster—Foster Pump Works, Brooklyn, N. Y.
Frederick Iron & Steel Co., Frederick, Md. "Frederick."
Glamorgan Pipe & Foundry Co., Lynchburg, Va.



SWABY CENTRIFUGAL PUMPS

for any service

Pumps for water supply — drainage — sewage — contractors — dredging — condensation and other needs. Write for information and prices on our new cellar drainer (see illustration.)

Swaby Mfg. Co.
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Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
Dayton-Dowd Co., Quincy, Ill.
Hooker Steam Pump Works, St. Louis, Mo.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Ingersoll-Rand Co., New York, N. Y.
Kerr Vortex—Kerr Machinery Corp., Detroit, Mich.
Kingsford Foundry & Machine Works, Oswego, N. Y.
Krogh Pump & Machinery Co., San Francisco, Cal.
Layne & Bowler Co., Memphis, Tenn.
Leach Company, The, Oshkosh, Wis.
Lecourtenay Co., Newark, N. J.
Loane—Loane Engineering Co., Baltimore, Md.
Lucey Mfg. Corp., New York, N. Y.
May-Nelson Mfg. Co., Washington, D. C.
Moloch Company, Kaukauna, Wis.
Moore Steam Turbine Corp., Wellsville, N. Y.
Morris Machine Works, Baldwinsville, N. Y.
Novo—Novo Engine Co., Lansing, Mich.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Pennsylvania—Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
Pennsylvania Pump & Compressor Co., Easton, Pa.
Power Turbo Blower Co., New York, N. Y.
Price Pump & Engine Co., G. W., San Francisco, Cal
Quimby, Wm. E., Inc., Newark, N. J.
Rider-Ericsson Engine Co., New York (Single and multi-stage.)
Roper, Geo. D., Corp., Rockford, Ill. "Soo," "Trahern."
Ross Two Way—The Ross Mfg. Co., Cleveland, O.
Roturbo—Manistee Iron Works Co., Manistee, Mich.
Rumsey's—Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Samsco—San Antonio Machine & Supply Co., San Antonio, Tex.
Schramm—Schramm, Inc., West Chester, Pa.
Scranton—Scranton Pump Co., Scranton, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Stine, S. B., Osceola Mills, Pa. (for mines).
Swaby Mfg. Co., Chicago, Ill.
Swett, A. L., Iron Works, Medina, N. Y.
Taber Pump Co., Buffalo, N. Y.
Terry Steam Turbine Co., The, Hartford, Conn.
Trane Co., The, LaCrosse, Wis.
Twinvolute—The John H. McGowan Co., Cincinnati, Ohio.
Union—Union Steam Pump Co., Battle Creek, Mich.
Valley Iron Works, Appleton, Wis.
Webb City & Carterville Foundry & Machine Works, Webb City, Mo.

Weinman Pump Mfg. Co., Columbus, O.
Weinmann—Plant Engineering & Equipment Co., New York, N. Y.
Westinghouse—Westinghouse Electric & Mfg. Co., Philadelphia, Pa.
Wheeler—The Wheeler Condenser & Engineering Co., New York, N. Y.
Wood & Co., R. D., Philadelphia, Pa.
Wilson-Snyder Mfg. Co., Pittsburgh, Pa.
Worthington Pump & Machinery Corp., New York, N. Y.
Wright, R. G., & Co., Buffalo, N. Y.
Yeomans Bros. Co., Chicago, Ill.
Young Pump Co., Michigan City, Ind.
Yuba Mfg. Co., San Francisco, Cal.

PUMPS, CISTERN AND SINK.

American Scale Co., Kansas City, Mo.
Aurora—Divekey Bros. Mfg. Co., Aurora, Ill.
Blue Special—The Deming Co., Salem, Ohio.
Centrifugal Pump Co., New York, N. Y. "Silent."
Davis-Hansen Pump Co., Oshkosh, Wis.
Dempster—Dempster Mill Mfg. Co., Beatrice, Neb.
Douglas—W. & B. Douglas, Middletown, Conn.
F. & S. Ideal—The Field & Shorb Co., Decatur, Ill.
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
Hartley, C. J., Co., Peoria, Ill.
Hayes—Hayes Pump & Planter Co., Galva, Ill.
Hazen Mfg. Co., Hudson, Mich.
Humphryes Mfg. Co., The, Mansfield, O.
Kerrihard Co., The, Red Oak, Ia.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Myers—F. E. Meyers & Bro. Co., Ashland, O.
Peters'—Peters Pump Co., Kewanee, Ill.
Pittsburgh Pump & Supply Co., Pittsburgh, Pa.
Puritan—The Barnes Mfg. Co., Mansfield, O.
Roper, Geo. D., Corp., Rockford, Ill. "Soo," "Trahern."
Rumsey's—Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Union Iron Works, The, Selma, Ala.
Warlo—Ward-Love Pump Corp., Rockford, Ill.

PUMPS, CONDENSATION, AUTOMATIC.

American-Marsh—American Steam Pump Co., Battle Creek, Mich.
Economy—Economy Pumping Machinery Co., Chicago, Ill.
Gardner Governor Co., Quincy, Ill.
McVoy—Phoenix Machine Works, Mobile, Ala.
Murdock Pump Co., Indianapolis, Ind.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Rider-Ericsson Engine Co., New York. (and receiver).
Roper, Geo. D., Corporation, Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y. "Rumsey."
Silent—Centrifugal Pump Co., New York, N. Y.
Sterling—Sterling Engineering Co., Milwaukee, Wis.
Sure Return—Chicago Pump Co., Chicago, Ill.
Union Steam Pump Co., Battle Creek, Mich. "Union."
Trane Co., The, La Crosse, Wis. "Trane."
Weil Pump Company, Chicago, Ill.
Westco—Westco-Chippewa Pump Co., Davenport, Iowa.
Western Engineering Co., Davenport, Iowa (and receiver).
Westinghouse—Westinghouse Electric & Mfg. Co., Philadelphia, Pa.
Worthington Pump & Machinery Corp., New York, N. Y.
Wright-Austin Co., Detroit, Mich.
Yeomans Bros. Co., Chicago, Ill.

PUMPS, CONTRACTORS, PORTABLE

Acme—W. & B. Douglas, Middletown, Conn.
Barnes Mfg. Co., Mansfield, O. "Ajax," "Colonial," "Handy."
Boss—American Cement Machine Co., Keokuk, Iowa.
C. H. & E.—C. H. & E. Manufacturing Co., Inc., Milwaukee, Wis.
Canton-Hughes—Chalmers Pump & Mfg. Co., Lima, Ohio.
Carlin Machine Co., John H., Pittsburgh, Pa.
Castle—A. M. Castle Engineering Co., La Crosse, Wis.
Centrifugal Pump Co., New York, N. Y.
Chicago Well Supply Co., Chicago, Ill.
Construction Machinery Co., Waterloo, Ia. "Wonder."
Deming Co., The, Salem, Ohio.
Detroit Nut Co., Detroit, Mich.
Domestic—Domestic Engine & Pump Co., Shippensburg, Pa.
Economy Pumping Machinery Co., Chicago, Ill.
Edson Mfg. Corp., Boston, Mass.
Erie Pump & Engine Works, Inc., Medina, N. Y.
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
Hill Pump & Turbine Works, Anderson, Ind.
Humphryes—The Humphryes Mfg. Co., Mansfield, O.
Jumbo—Nelson Bros. Co., Saginaw, Mich.
Koehring Co., Milwaukee, Wis.
Laughlin, Thos., Co., The, Portland, Me.
Leach Company, The, Oshkosh, Wis.
Loane—Loane Engineering Co., Baltimore, Md.
Marine Mfg. & Supply Co., New York.
Morris Machine Works, Baldwinsville, N. Y.
Myers—F. E. Myers & Bro. Co., Ashland, O.
Novo—Novo Engine Co., Lansing, Mich.
Parker, A. A., Waterford, N. Y.
Parks Engineering Co., Philadelphia, Pa.
Roper, Geo. D., Corporation, Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y. "Rumsey's."
Schramm—Schramm, Inc., West Chester, Pa.
Smith-Vaile—The Platt Iron Works Co., Dayton, O.
Star—Boston & Lockport Block Co., Boston, Mass.
Stein's—John J. Stein, Brooklyn, N. Y.
Torrey Roller Bushing Works, Bath, Maine.
Worthington Pump & Machinery Corp., New York.

PUMPS, DREDGING.

American-Marsh—American Steam Pump Co., Battle Creek, Mich.
Aldrich—Aldrich Pump Co., Allentown, Pa.
American Well Works, Aurora, Ill.
Buffalo Steam Pump Co., Buffalo, N. Y.
Byron Jackson—Byron Jackson Pump Mfg. Co., Los Angeles, Cal.
Cataract—Joseph Edwards & Co., New York, N. Y.
Columbus Steam Pump Works Co., The, Columbus, O.
Erie—Erie Pump & Engine Co., Medina, N. Y.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hill Pump & Turbine Works, Anderson, Ind.
Kingsford Foundry & Machine Co., Oswego, N. Y.
Lawrence Pump & Engine Co., Lawrence, Mass.
Morris Machine Works, Baldwinsville, N. Y.
Swaby Mfg. Co., Chicago, Ill.
Worthington Pump & Machinery Corp., New York.

PUMPS, DRY VACUUM.

Alberger Pump & Condenser Co., New York, N. Y. "Alberger."
American-Marsh—American Steam Pump Co., Battle Creek, Mich.
Cameron, A. S., Steam Pump Works, New York, N. Y.
Chicago Pump Co., Chicago, Ill.
Connersville Blower Co., Connersville, Ind.
Davidson, M. T., Co., New York, N. Y.
Economy—Economy Pumping Machinery Co., Chicago, Ill.
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
Imperial Ingersoll-Rand—Ingersoll-Rand Co., New York, N. Y.
Lammert & Mann Co., Chicago, Ill.
Quincy Compressor Co., Quincy, Ill.
Union Steam Pump Co., Battle Creek, Mich.
Worthington Pump & Machinery Corp., New York.

PUMPS, ELEVATOR.

(See also "Pumps, Hydraulic.")

Aldrich Pump Co., Allentown, Pa. "Aldrich."
American—American Steam Pump Co., Battle Creek, Mich.
Buffalo—Buffalo Steam Pump Co., Buffalo, N. Y.
Chicago Pump Co., Chicago, Ill.
Davidson, M. T., Co., New York, N. Y.
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
McGowan—John H. McGowan Co., The, Cincinnati, Ohio.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y. "Rumsey."
Twinvolute—The John H. McGowan Co., Cincinnati, Ohio.
Wagener Steam Pump Co., Canton, Ohio.
Warren Steam Pump Co., Warren, Mass.
Worthington Pump & Machinery Corp., New York.

PUMPS, FILLING STATION.

(See also "Pumps, Measuring.")

Kellogg—Kellogg Mfg. Co., Rochester, N. Y.
Milwaukee Tank Works, Inc., Milwaukee, Wis.

PUMPS, FILTER PRESS.

Guild & Garrison, Brooklyn, N. Y.
Latta-Martin Pump Co., Hickory, N. C.
Westco—Westco-Chippewa Pump Co., Davenport, Iowa.

PUMPS, FIRE, UNDERWRITERS'.

(See also "Pumps, Steam.")

Dayton-Dowd Co., Quincy, Ill.
Earle Gear & Machine Co., The, Philadelphia, Pa. "Earle."
Economy Pumping Machinery Co., Chicago, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Humphryes—The Humphryes Mfg. Co., Mansfield, Ohio.
Jaeger Portable Power Corp., Detroit, Mich. "Fyr Foe Auto Powered."
Lecourtenay Co., Newark, N. J.
Pirsch, Peter, & Sons Co., Kenosha, Wis.
Queen—Harker Mfg. Co., Cincinnati, O.
Roper, Geo. D., Corp., Rockford, Ill. "Trahern."

Weil Pump Company, Chicago, Ill.
Weinman Pump Mfg. Co., The, Columbus, O. "Weinman."
Worthington Pump & Machinery Corp., New York.

PUMPS, FLY-WHEEL.

Dean Hill Pump Co., Anderson, Ind.
Transit—National Transit Pump & Machine Co., Oil City, Pa.
Worthington Pump & Machinery Corp., New York.

PUMPS, FORCE AND LIFT, HAND AND WINDMILL.

Acme—The Deming Co., Salem, Ohio.
Always Primed—Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Athol Pump Co., Athol, Mass.
Atlas—The Deming Co., Salem, O.
Banner—Barnes Mfg. Co., The, Mansfield, O.
Banner—The Deming Co., Salem, O.
Bishop & Babcock Co., The, Cleveland, O.
Blackmer Rotary Pump Co., Grand Rapids, Mich.
Blue Special—The Deming Co., Salem, O.
Blue Star—Wistrand Mfg. Co., Galva, Ill.
Boss—American Cement Machine Co., Keokuk, Iowa.
Buckeye—Mast, Foos & Co., Springfield, O.
Bushnell—Bushnell Pump Co., Bushnell, Ill.
Capitol—The Barnes Mfg. Co., Mansfield, O.
Challenge—Challenge Co., Batavia, Ill.
Chicago Well Supply Co., Chicago, Ill.
Climax—The Deming Co., Salem, O.
Cogswell—The Deming Co., Salem, O.
Colonial—The Barnes Mfg. Co., Mansfield, O.
Columbia—The Deming Co., Salem, O.
Cook, A. D., Inc., Lawrenceburg, Ind.
Corcoran—A. J. Corcoran, Inc., Jersey City, N. J.
Crestline Mfg. Co., Crestline, O. Trade names—Classic, Gold Bond, Hector, Little King, Reliance Pilot, Sunshine.
Decatur Pump Co., Decatur, Ill.
Dempster—Dempster Mill Mfg. Co., Beatrice, Neb.
Dixie—The Barnes Mfg. Co., Mansfield, O.
Domestic—The Deming Co., Salem, O.
Douglas—W. & B. Douglas, Middletown, Conn.
Duplex Mfg. Co., Superior, Wis.
Economic—W. & B. Douglas, Middletown, Conn.
Economy—Indiana Air Pump Co., Indianapolis, Ind.
Etter—Domestic Engine & Pump Co., Shippensburg, Pa.
Farmer's Favorite—The Deming Co., Salem, O.
Flint & Walling Mfg. Co., Kendallville, Ind. "Fast Mail."
Florida—Rumsey Pump Co., Seneca Falls, N. Y.
F. & S.—The Field & Shorb Co., Decatur, Ill.
Fuller & Johnson Mfg. Co., Madison, Wis.
Gardner Governor Co., Quincy, Ill.
Giant—The Deming Co., Salem, O.
Goulds Pumps, Inc., Seneca Falls, N. Y. (Trade names—Advance, Autowater, Boston, Challenge, Columbia, Combination, Empire, New Alert, Pacific, Pyramid, New Lightning, Thresher, Universe, Vim, Southern Star, Star Ratchet, "Stock," Syphon, Anti-Freezing.)
Handy Billy—The Humphryes Mfg. Co., Mansfield, Ohio.
Handy—The Barnes Mfg. Co., Mansfield, O.
Hannegan—Western Pump & Machinery Co., St. Paul, Minn.
Hawkeye—Chandler Pump Co., Cedar Rapids, Ia.
Hayes—Hayes Pump & Planter Co., Galva, Ill.
Hazen Mfg. Co., Hudson, Mich.
Hoosier—Flint & Walling Mfg. Co., Kendallville, Ind.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Hydraeram—The Deming Co., Salem, O.
Ideal—The Deming Co., Salem, O.
Imperial—The Barnes Mfg. Co., Mansfield, O.
Jupiter—The Barnes Mfg. Co., Mansfield, O.
Kerrihard Co., Red Oak, Ia.
Klotz, Aug. H., Co., Sandusky, O.
Lansing, Maud S., Mascot—Lansing Motor & Pump Co., Lansing, Mich.
Leader—The Deming Co., Salem, O.
Leader Iron Works, Decatur, Ill.
Humphryes—The Humphryes Mfg. Co., Mansfield, O.
Little Giant—The Deming Co., Salem, O.
Loane—Loane Engineering Co., Baltimore, Md.
Locke—Locke Regulator Co., Salem, Mass.
Lucas-Miner Pump Co., The, Dayton, O.
Luitwieler Pumping Engine Co., Rochester, N. Y.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Marine, Mascot—The Deming Co., Salem, O.
Myers, F. E., & Bro., Ashland, O. Trade names—Advance, Defiance, Gusher, Hydro-Pneumatic, Regulator, Siphon, Ashland, Bulldozer, Cog Gear, Imperial, New Century, Ratchet Handle, Submerged Cylinder, Tubular Handle, Low Down.
Mohican—The Barnes Mfg. Co., Mansfield, O.
Monarch—Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Monitor—Baker Mfg. Co., Evansville, Wis.
Myers—Myers Machine Tool Corp., Columbia, Pa.
Nelson Mfg. & Supply Co., Hutchinson, Kan.
New Era—The Deming Co., Salem, O.
New Model—The Deming Co., Salem, O.
Novo—Novo Engine Co., Lansing, Mich.
Oshkosh—Davis-Hansen Pump Co., Oshkosh, Wis.
Parlor City—Chandler Pump Co., Cedar Rapids, Ia.
Peerless—The Deming Co., Salem, O.
Peters'—Peters Pump Co., Kewanee, Ill.
Pittsburgh Pump Co., Pittsburgh, Pa. (Trade names—Improved Top Notch, New Fountain, Ohio Improved, Pittsburgh, Rex, Treko, Tufnut.)
Premium—The Deming Co., Salem, O.
Red Cross—The Red Cross Mfg. Co., Bluffton, Ind.
Red Jacket Mfg. Co., Davenport, Ia. (Trade names—Never-Fail, Red Jacket, So-Easy-To-Fix.)
Richland—The Barnes Mfg. Co., Mansfield, O.
Roper, Geo. D., Corp., Rockford, Ill. "Soo," "Trahern."
Rumsey's Acme, Rumsey's Anti-Freezing, Rumsey's Cataract, Rumsey's Excelsior, Rumsey's Maltese Cross, Rumsey's Powerful, Rumsey's Terror—Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Schramm—Schramm, Inc., West Chester, Pa.
Shirk—Blue Ball Machine Works, Blue Ball, Pa.
Side Force—W. & B. Douglas, Middletown, Conn.
Smith—T. L. Smith Co., The, Milwaukee, Wis.
Star Pointer Pump Mfg. Co., Menasha, Wis.
Triumph—The Deming Co., Salem, O.
Vim—The Barnes Mfg. Co., Mansfield, O.
Warlo—Ward-Love Pump Corp., Rockford, Ill.
Westco—Westco-Chippewa Pump Co., Davenport, Iowa.
Wilson & Bennett Mfg. Co., Chicago, Ill.
Woodmanse Mfg. Co., Freeport, Ill.

PUMPS, GAGE TESTING.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Ashcroft Mfg. Co., The, New York, N. Y. "Ashcroft."
Ashton Valve Co., The, Cambridge, Mass.
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
Lonergan—J. E. Lonergan Co., Philadelphia, Pa.
Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
Roper Geo. D., Corp., Rockford, Ill. "Trahern."
Rumsey—Rumsey Pump Co., Ltd., Seneca Falls, N. Y
Standard—Star Brass Mfg. Co., Boston, Mass.
United States Gauge Co., New York, N. Y.

PUMPS, GARAGE.

(See also "Pumps, Air.")

American-Marsh—American Steam Pump Co., Battle Creek, Mich.
Barnes Mfg. Co., Mansfield, O.
Bishop & Babcock Co., The, Cleveland, O.
Blackmer Maid—Blackmer Rotary Pump Co., Grand Rapids, Mich.
Columbian Steel Tank Co., Kansas City, Mo.
Gardner Junior Monarch—Gardner Governor Co., The, Quincy, Ill.
Gilbert & Barker Mfg. Co., Springfield, Mass.
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
Kellogg Mfg. Co., Rochester, N. Y.
Milwaukee Tank Works, Milwaukee, Wis.
Moloch Company, Kaukauna, Wis.
Reeco Gasoline—Rider-Ericcson Engine Co., New York, N. Y.
Roper, Geo. D., Corp., Rockford, Ill. "Soo," "Trahern."
Sexton Can Co., Boston, Mass.

PUMPS, GAS DRIP.

Goulds Pumps, Inc., Seneca Falls, N. Y.
Roper, Geo. D., Corporation, Rockford, Ill.

PUMPS, GAS SERVICE CLEANER.

Bernz, Otto, Co., Newark, N. J.

PUMPS, GASOLINE AND OIL.

American Oil Pump & Tank Co., Cincinnati, O.
American—American Pump & Tank Co., New York.
Blackmer Rotary Pump Co., Grand Rapids, Mich.
Cleveland Steel Barrel Co., Cleveland, O.
Dayton-Dowd Co., Quincy, Ill.
Foster Pump Works, Brooklyn, N. Y. "Excelsior."
Gardner Governor Co., Quincy, Ill.
Gilbert & Barker Mfg. Co., Springfield, Mass.
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
Groetken Pump Co., The, Aurora, Ill.
Guarantee Liquid Measure Co., Rochester, Pa. "Guarantee Visible."
Kinney—Kinney Mfg. Co., Boston, Mass.
Leader Iron Works, Decatur, Ill.
Leiman Bros., New York, N. Y.
Moloch Company, Kaukauna, Wis.
Handy Billy Myers—F. E. Myers & Bro. Co., Ashland, O.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Rider-Ericsson Engine Co., New York, N. Y.
Roper, Geo. D., Corp., Rockford, Ill. "Soo," "Trahern."
Rumsey—Rumsey Pump Co., Ltd., Seneca Falls, N. Y.

Taber Pump Co., Buffalo, N. Y.
Tuthill Pump Co., Chicago, Ill.
Ward-Love Pump Corp., Rockford, Ill. "Warlo."
Wayne Tank & Pump Co., Fort Wayne, Ind.
Wilson & Bennett Mfg. Co., Chicago, Ill.
Worthington Pump & Machinery Corp., New York.

PUMPS, GREASE, LUBRICATING.

Cleveland Steel Barrel Co., Cleveland, O.
Kinney—Kinney Mfg. Co., Boston, Mass.
Midland Mfg. Co., Ft. Worth, Tex. "Midland."
Richardson-Phenix Co., Milwaukee, Wis.
Roper, Geo. D., Corporation, Rockford, Ill.

PUMPS, HOUSE, ELECTRIC AND WATER MOTOR.

Aldrich—Aldrich Pump Co., Allentown, Pa.
American-Marsh—American Steam Pump Co., Battle Creek, Mich.
American Well Works, The, Aurora, Ill.
Ansonia—Ansonia Corporation, New York, N. Y.
Automatic Bulldozer—F. E. Myers & Bro. Co., Ashland, O.
Automatic Rotary Pump Co., New York, N. Y.
Badger—Wisconsin Foundry & Machine Co., Madison, Wis.
Barnes Mfg. Co., The, Mansfield, O.
Beach-Russ Co., New York, N. Y.
Blackmer Maid—Blackmer Rotary Pump Co., Grand Rapids, Mich.
Booster—Swaby Mfg. Co., Chicago, Ill.
Buckeye—Mast, Foos & Co., Springfield, O.
Buffalo Steam Pump Co., Buffalo, N. Y.
Champion—The Bishop & Babcock Co., Cleveland, O.
Chicago Pump Co., Chicago, Ill.
Chicago Well Supply Co., Chicago, Ill.
Combination—Goulds Pump Co., Inc., Seneca Falls, N. Y.
Connersville Blower Co., Connersville, Ind. "Connersville."
Cook, A. D., Inc., Lawrenceburg, Ind.
Crestline Mfg Co., Crestline, Ohio.
Cub—Dayton Pump & Mfg. Co., Dayton, O.
Dayton-Dowd Co., Quincy, Ill.
Dean Hill Pump Co., Anderson, Ind.
Decatur Pump Co., Decatur, Ill.
Deming—The Deming Co., Salem, O.
Dempster Mill Mfg. Co., Beatrice, Neb. "Dempster."
Douglas, W. & B., Middletown, Conn.
Duro Pump & Mfg. Co., Dayton, O.
Economy Pumping Machinery Co., Chicago, Ill.
Fairbanks Engineering Corp., Worcester, Mass.
Farrar Pump & Machinery Co., St. Louis, Mo.
F. & W.—Flint & Walling Mfg. Co., Kendallville, Ind.
Foster's Excelsior—Foster Pump Works, Brooklyn, N. Y.
Goulds Pumps, Inc., Seneca Falls, N. Y. "Autowater."
Gurley—Gurley Pump & Mfg. Co., Indianapolis, Ind.
Hall—Hall Steam Pump Co., Pittsburgh, Pa.
Hayes—Hayes Pump & Planter Co., Galva, Ill.
Hazen Mfg. Co., Hudson, Mich.
Hoosier—Flint & Walling Mfg. Co., Kendallville, Ind.
Humphryes Mfg. Co., The, Mansfield, O.
Improved—W. & B. Douglas, Middletown, Conn.
Improved National—National Water Lift Co., Kalamazoo, Mich.
Index—Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Kalamazoo—National Water Lift Co., Kalamazoo, Mich.
Leader Iron Works, Decatur, Ill.
Luitwieler Pumping Engine Co., Rochester, N. Y.
Mast, Foos & Co., Springfield, Ohio.
McCullough Manufacturing Co., Minneapolis, Minn.
McDaniel—Watson & McDaniel Co., Philadelphia, Pa.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
McKiernan-Terry Drill Co., New York, N. Y.
McGowan—John H. McGowan Co., The, Cincinnati, Ohio.
Myers—F. E. Myers & Bro. Co., Ashland, O.
New Duplex—Goulds Pumps, Inc., Seneca Falls, N. Y.
Niagara—Niagara Hydraulic Engine Co., Chester, Pa.
National Gauge & Equipment Co., La Crosse, Wis.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Pendulum—W. & B. Douglas, Middletown, Conn
Perfected—Latta-Martin Pump Co., Hickory, N. C.
Peters'—Peters Pump Co., Kewanee, Ill.
Pickering Force Feed—The Pickering Governor Co., Portland, Conn.
Quimby—Wm. E. Quimby, Inc., Newark, N. J.
Return Air—Ingersoll-Rand Co., New York, N. Y
Rife Hydraulic Engine Mfg. Co., New York, N. Y.
Roberts, Geo. J., Co., Dayton, O. "Gem." "Roberts."
Roper, Geo. D., Corporation, Rockford, Ill.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y. "Rumsey."
Schramm—Schramm, Inc., West Chester, Pa.
Scranton Pump Co., Scranton, Pa.
Simplex—Simplex Pump Co., Bristol, Ind.
Soo—Leader-Trahern Co., Rockford, Ill.
Standard Pump & Engine Co., Akron, Ohio.
Southern Star—Goulds Pumps, Inc., Seneca Falls, N. Y.
Star—Goulds Pumps, Inc., Seneca Falls, N. Y.
Syphon—Goulds Pumps, Inc., Seneca Falls, N. Y.
Trane Company, The, LaCrosse, Wis.
Triumph Brass Co., Columbus, O. "Triumph," "Improved Triumph."
Twinvolute—The John H. McGowan Co., Cincinnati, Ohio.
Uniflow Manufacturing Co., Erie, Pa.
Universal—Latta-Martin Pump Co., Hickory, N. C.
V. & K.—The Valle & Kimes Co., Dayton, O.
Watson-Stillman Co., The, New York, N. Y.
Weil Pump Company, Chicago, Ill.
Weinman Pump Mfg. Co., Columbus, O. "Weinman."
Wolff's—Wolff Mfg. Co., Chicago, Ill.
Yeomans Bros., Co., Chicago, Ill. "Yeomans."

PUMPS, HYDRAULIC.

Aldrich—Aldrich Pump Co., Allentown, Pa.
American Fluid Motor Co., Philadelphia, Penna.
American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
American-Marsh—American Steam Pump Co., Battle Creek, Mich.
Barnard, Chas. A., Machine Co., Gardner, Mass.
Bethlehem Steel Co., Bethlehem, Pa.
Bishop & Babcock Co., The, Cleveland, O.
Blake Pump & Condenser Co., Fitchburg, Mass.
Boyts, Porter & Co., Connellsville, Pa.
Buckeye—Mast, Foos & Co., Springfield, O.
Buffalo Steam Pump Co., Buffalo, N. Y. "Buffalo."
Burroughs, Chas., Co., The, Newark, N. J.
Carbondale Machine Co., The, Carbondale, Pa.
Champion—The Cleveland Faucet Co., Cleveland, O.
Chambersburg Engineering Co., Chambersburg, Pa.
Davidson, M. T., Co., New York, N. Y.
Dayton-Dowd Co., Quincy, Ill.
Dean Hill Pump Co., Anderson, Ind.
Dunning & Boschert Press Co., Inc., Syracuse, N. Y.
Elmes, Chas. F., Engineering Works, Chicago, Ill.
Erie Pump & Engine Works, Inc., Medina, N. Y.
Galland-Henning Mfg. Co., Milwaukee, Wis.
Garrett, W. D., & Co., New York.
General Electric Co., Schenectady, N. Y.
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
Hydraulic Press Mfg. Co., Columbus, Ohio. (high pressure.) "H. P. M."
Ingersoll-Rand Co., New York, N. Y.
Kingsford Foundry & Machine Co., Oswego, N. Y.
Krogh Pump & Machinery Co., San Francisco, Cal. "Krogh."
Logemann Bros. Co., Milwaukee, Wis.
Lourie—Lourie Mfg. Co., Springfield, Ill.
Luitwieler—Luitwieler Pumping Engine Co., Rochester, N. Y.
McGowan—John H. McGowan Co., The, Cincinnati, Ohio.
Moloch Company, Kaukauna, Wis.
Morris Machine Works, Baldwinsville, N. Y.
Myers—F. E. Myers & Bro. Co., Ashland, O.
Nashua Steam Press & Boiler Works, Nashua, N. H.
Oilgear Co., Milwaukee, Wis.
Perfect—National Steam Pump Co., Upper Sandusky, Ohio.
Perrin, Wm. R., & Co., Chicago, Ill.
Robertson, John, & Co., Brooklyn, N. Y.
Roturbo—Manistee Iron Works Co., Manistee, Mich.
Rumsey—Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Shriver—T. Shriver & Co., Harrison, N. J.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Union Steam Pump Co., Battle Creek, Mich.
Vogt Brothers Mfg. Co., Louisville, Ky.
Wagener Steam Pump Co., Canton, Ohio.
Warren Steam Pump Co., Warren, Mass.
Watson-Stillman Co., The, New York, N. Y.
West Tire Setter Co., Rochester, N. Y.
Wilson-Snyder Mfg. Co., Pittsburgh, Pa.
Wood, William H., Media, Pa.
Worthington Pump & Machinery Corp., New York.
Yeomans—Yeomans Bros., Chicago, Ill.

PUMPS, HYDRAULIC, PIPE-TESTING.

Goulds Pumps, Inc., Seneca Falls, N. Y. "Goulds."
Rumsey Pump Co., Ltd., Seneca Falls, N. Y. "Rumsey."

PUMPS, HYDRAULIC VACUUM.

Blakeslee Mfg. Co., Du Quoin, Ill.
Penberthy Injector Co., Detroit, Mich.
Thompson Mfg. Co., Des Moines, Iowa.

PUMPS, HYDRO-PNEUMATIC.

Decatur Pump & Mfg. Co., Decatur, Ill.
Economy Pumping Machinery Co.
Elton—Elton Company, Allentown, Pa.
Fairhurst—American Air Compressor Works, Brooklyn, N. Y.
Goulds Pumps, Inc., Seneca Falls, N. Y. "Autowater." "Goulds."
Harris Air Pump Co., Indianapolis, Ind.

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Deep Well Jet Pumps
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Bilge Pumps
Automatic Controls for above pumps.

Blakeslee Mfg. Co.
Du Quoin, Ill.

Hill Pump & Turbine Works, Anderson, Ind.
Humphryes Mfg. Co., Mansfield, Ohio.
Myers, F. E., & Bro. Co., Ashland, O. Trade names—Automatic, Electric, Bulldozer, Century, Myers.
Roper Geo. D., Corp., Rockford, Ill. "Trahern."
Rumsey—Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Schramm—Schramm, Inc., West Chester, Pa.
Universal—Latta-Martin Pump Co., Hickory, N. C.
Ward-Love Pump Corp., Rockford, Ill. "Warlo."

PUMPS, IRRIGATING AND DRAINAGE.

Adams—W. T. Adams Machine Co., Corinth, Miss.
Aldrich—Aldrich Pump Co., Allentown, Pa.
Allis-Chalmers Co., Milwaukee, Wis.
American Well Works, The, Aurora, Ill.
American-Marsh—American Steam Pump Co., Battle Creek, Mich.
Bay City Dredge Works, Bay City, Mich.
Buffalo Steam Pump Co., Buffalo, N. Y.
Cameron—A. S. Cameron Steam Pump Works, New York, N. Y.
Columbia—The Deming Co., Salem, O.
Connersville—Connersville Blower Co., Connersville, Ind.
Cook, A. D., Inc., Lawrenceburg, Ind.
Dayton-Dowd Co., Quincy, Ill.
Dean Hill Pump Co., Anderson, Ind.
Dempster Mill Mfg. Co., Beatrice, Neb.
Erie Pump & Engine Works, Inc., Medina, N. Y.
Farrar Pump & Machinery Co., St. Louis, Mo.
Gardner Governor Co., Quincy, Ill.
Garratt, W. T., San Francisco, Cal.
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
Hoosier—Flint & Walling Mfg. Co., **Kendallville, Ind**
Humphryes Mfg. Co., The, **Mansfield, O.**
Layne & Bowler Co., Memphis, Tenn.
Luitwieler Pumping Engine Co., Rochester, N. Y.
Menge Pump & Machinery Co., Ltd., New Orleans, La. "Menge."
Midland Mfg. Co., Fort Worth, Tex. "Boicourt."
Mogul—Woodmanse Mfg. Co., Freeport, Ill.
Morris Machine Works, Baldwinsville, N. Y.
Myers Bulldozer—F. E. Myers & Bro. Co., Ashland, O.
New Deluge—Goulds Pumps, Inc., Seneca Falls, N. Y.
Premium—The Deming Co., Salem, O.
Roots, P. H. & F. M., Co., The, Connersville, Ind.
Roper, Geo. D., Corp., Rockford, Ill. "Soo," "Trahern."
Roturbo—**Manistee Iron Works Co., Manistee, Mich.**
Rumsey Pump Co., Ltd., Seneca Falls, N. Y. "Rumsey."
Smith-Vaile—The Platt Iron Works Co., **Dayton, O.**
Terry Steam Turbine Co., Hartford, Conn.
Union Steam Pump Co., Battle Creek, **Mich.**
Vogt Brothers Mfg. Co., Louisville, Ky.
Weinman—Weinman Pump Mfg. Co., Columbus, O.
Worthington Pump & Machinery Corp., New York.

PUMPS, JET, STEAM.

(See also "Pumps, Steam," and "Ejectors")
American Injector Co., Detroit, Mich.
Blakeslee Mfg. Co., DuQuoin, Ill.
Excelsior—Victoria Metal Co., Erie, Pa.
Penberthy Injector Co., Detroit, Mich.
Schutte & Koerting Co., Philadelphia, Pa.
Watson & McDaniel Co., Philadelphia, Pa.

PUMPS, JET, WATER.

Blakeslee Mfg. Co., DuQuoin, Ill.

PUMPS, LUBRICATING AND COOLING, FOR MACHINE TOOLS.

Fulflo—**Fulflo Pump Co., The, Blanchester, O.**
Goulds Pumps, Inc., Seneca Falls, N. Y.
New Britain—The New Britain Machine Co., New Britain, Conn.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Rollway—Michigan Machine Co., Detroit, Mich.
Roper, Geo. D., Corp., Rockford, Ill. "Soo," "Trahern."
Ross Two Way—The Ross Mfg. Co., Cleveland, O.
Tuthill Pump Co., Chicago, Ill.

PUMPS, MAGMA.

American-Marsh—American Steam Pump Co., Battle Creek, Mich.
Cameron—A. S. Cameron Steam Pump Works, New York, N. Y.
Connersville Blower Co., Connersville, Ind. "Connersville."
Davidson, M. T., Co., New York, N. Y.
Guild & Garrison, Brooklyn, N. Y.
Kinney Mfg. Co., Boston, Mass.
Luitwieler Pumping Engine Co., Rochester, N. Y.
McGowan—John H. McGowan Co., The, Cincinnati, Ohio.
Smith-Vaile—The Platt Iron Works Co., Dayton, O.
Union Steam Pump Co., Battle Creek, Mich.
Worthington Pump & Machinery Corp., New York.

PUMPS, MARINE.

American-Marsh—American Steam Pump Co., Battle Creek, Mich.
Cameron—A. S. Cameron Steam Pump Works, New York, N. Y.
Canton-Hughes—Chalmers Pump & Mfg. Co., Lima, Ohio.
Davidson, M. T., Co., New York, N. Y.
Dayton-Dowd Co., Quincy, Ill.
Douglas—W. & B. Douglas, Middletown, Conn.
Dow Pump & Diesel Engine Co., San Francisco, Calif.
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
Humphryes—The Humphryes Mfg. Co., Mansfield, O.
Kinney—Kinney Mfg. Co., Boston, Mass.
McGowan, John H. Co., Cincinnati, O.
Manistee Iron Works Co., Manistee, Mich. "Roturbo."
Myers New Century—F. E. Myers & Bro. Co., **Ashland, O.**
National Steam Pump Co., Upper Sandusky, Ohio.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y. "Rumsey."
Smith-Vaile—The Platt Iron Works Co., Dayton, O.
Transit—National Transit Pump & Machine Co., Oil City, Pa.
Union Steam Pump Co., Battle Creek, Mich. "Burnham."
Westco—Westco-Chippewa Pump Co., Davenport, Iowa.
Worthington Pump & Machinery Corp., New York.

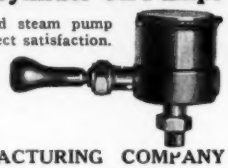
PUMPS, MASH, SOAP, ETC.

American-Marsh—American Steam Pump Co., Battle Creek, Mich.
Blackmer Rotary Pump Co., Grand Rapids, Mich.
Davidson, M. T., Co., New York, N. Y.
Dayton-Dowd Co., Quincy, Ill.
Foster Pump Works, Brooklyn, N. Y.
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
Improved Appliance Co., Brooklyn, N. Y.
Kinney—Kinney Mfg. Co., Boston, Mass.
Lobee—Lobee Pump & Machinery Co., Buffalo, N. Y.
McGowan—John H. McGowan Co., The, Cincinnati, Ohio.
Moloch Company, Kaukauna, Wis.
Roper, Geo. D., Corporation, Rockford, Ill.
Smith-Vaile—The Platt Iron Works Co., Dayton, O.
Union Steam Pump Co., Battle Creek, Mich.
Wagener Steam Pump Co., Canton, O.

PUMPS, MEASURING.

American—The American Oil Pump & Tank Co., Dayton, O.
Bowser, S. F., & Co., Ft. Wayne, Ind.
Climax—Keystone Boiler & Foundry Co., Landisville, Pa.
Columbian Steel Tank Co., Kansas City, Mo.
Gilbert & Barker—Gilbert & Barker Mfg. Co., Springfield, Mass.
Guarantee Liquid Measure Co., Rochester, Pa.
Hoosier—Flint & Walling Mfg. Co., Kendallville, Ind.
Ideal—Kupferle Bros. Mfg. Co., St. Louis, Mo.
Imperial—Western Oil Pump & Tank Co., St. Louis, Mo.
Inglis Mfg. Co., Milwaukee, Wis.
Midland Mfg. Co., Ft. Worth, Tex. "Midland."
Milwaukee Tank Works, Inc., Milwaukee, Wis.
Roper, Geo. D., Corporation, Rockford, Ill.
Taber Pump Co., Buffalo, N. Y.
Tokheim Oil Tank & Pump Co., Ft. Wayne, Ind.
Wayne Tank & Pump Co., Ft. Wayne, Ind.

Felthousen Hand Cylinder Oil Pumps



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Aldrich—Aldrich Pump Co., Allentown, Pa.
American-Marsh—American Steam Pump Co., Battle Creek, Mich.
American Well Works, Aurora, Ill.
Boyts, Porter & Co., Connellsville, Pa.
Bulldozer and Century—F. E. Myers & Bro. Co., Ashland, O.
Buffalo Steam Pump Co., Buffalo, N. Y. "Buffalo."
Cameron—A. S. Cameron Steam Pump Works, New York.
Connellsville Machine & Car Co., Connellsville, Pa.
Connellsville Mfg. & Mine Supply Co., Connellsville, Pa.
Crawford & McCrimmon Co., Brazil, Ind. (lead lined, steam & electric).
Davidson, M. T., Co., New York, N. Y.
Dayton-Dowd Co., Quincy, Ill.
Dean Hill Pump Co., Anderson, Ind.
Economy Pumping Machinery Co., Chicago, Ill.
Erie Pump & Engine Works, Inc., Medina, N. Y.
Fairmont—Fairmont Mining Machinery Co., Fairmont, W. Va.
Gardner Governor Co., Quincy, Ill.
Garratt's—W. T. Garratt & Co., San Francisco, Cal.
Georgia Iron Works, Augusta, Ga.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Goyne Steam Pump Co., The, Ashland, Pa. "Goyne."
Humphreys Mfg. Co., The, Mansfield, O. "Handy Billy."
Jackson, Byron, Pump Mfg. Co., Los Angeles, Cal. "Byron Jackson," "Dubois."
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Layne & Bowler Co., Memphis, Tenn.
McGowan—John H. McGowan Co., The., Cincinnati, O.
Morris Machine Works, Baldwinsville, N. Y.
Myers, F. E., & Bro. Co., Ashland, O.
National Steam Pump Co., Upper Sandusky, Ohio.
Pneumelectric Corporation, Syracuse, N. Y.
Roper, Geo. D., Corporation, Rockford, Ill.
Roturbo—Manistee Iron Works Co., Manistee, Mich.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y. "Rumsey."
Terry Steam Turbine Co., The, Hartford, Conn.
Union Steam Pump Co., Battle Creek, Mich.
Vogt Brothers Mfg. Co., Louisville, Ky.
Wagener Steam Pump Co., Canton, O.
Weinman Pump Mfg. Co., Columbus, O.
Westco—Westco-Chippewa Pump Co., Davenport, Iowa.
Worthington Pump & Machinery Corp., New York, N. Y.

PUMPS, OIL, FUEL.

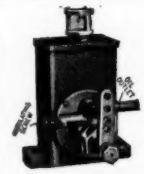
(See also "Systems, Fuel Oil Pumping.")

Aldrich Pump Co., Allentown, Pa. "Aldrich."
American Machine & Foundry Co., Brooklyn, N. Y.
American-Marsh—American Steam Pump Co., Battle Creek, Mich.
Combustion Engineering Corp., New York, N. Y. "Quinn."
Combustion Service Corp'n, New York, N. Y.
Davidson, M. T., Co., New York, N. Y.
Economy Pumping Machinery Co., Chicago, Ill.
Gem Oil Burner Co., Lincoln, Neb.
Kinney—Kinney Mfg. Co., Boston, Mass.
Leiman Bros., New York, N. Y.
Milwaukee Tank Works, Milwaukee, Wis.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Rockwell, W. S., Co., New York, N. Y.
Roper Geo. D., Corp., Rockford, Ill. "Trahern."
Tate-Jones & Co., Inc., Leetsdale, Pa.
Tuthill Pump Company, Chicago, Ill.
Union Steam Pump Co., Battle Creek, Mich. "Union."
Viking—The Viking Pump Co., Cedar Falls, Iowa.
Wagener Steam Pump Co., Canton, O.
Wayne Tank & Pump Co., Ft. Wayne, Ind.
Westco—Westco-Chippewa Pump Co., Davenport, Iowa.
Western Oil Pump & Tank Co., St. Louis, Mo.
Wilson & Bennett Mfg. Co., Chicago, Ill.
Worthington Pump & Machinery Corp., New York.

PUMPS, OIL, LUBRICATING.

(See also "Lubricators, Force Feed.")

Beacon—The Wm. Powell Co., Cincinnati, O.
Buffalo—Sherwood Mfg. Co., Buffalo, N. Y.
Cadet, Beacon—Wm. Powell Co., The, Cincinnati, O.
Combination—Essex Brass Corp., Detroit, Mich.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., Cincinnati, O.
Essex—Essex Brass Corp., Detroit, Mich.
Gardner Governor Co., Quincy, Ill.
Hall's—Hall Mfg. Co., Harrison, N. J.
Hills-McCanna Co., Chicago, Ill.
Judson Governor Co., Rochester, N. Y.
King—Michigan Lubricator Co., Detroit, Mich.
Kipp—Madison-Kipp Corp., Madison, Wis. (sight feed and blind feed).
J. E. Lonergan Co., Philadelphia, Pa. (hand). "Lonergan."
Lunkenheimer Co., Cincinnati, O. Trade names—**Alpha, Invincible, Marvel, Universal.**
Manzel—Manzel Brothers Co., Buffalo, N. Y.



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Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Penberthy Injector Co., Detroit, Mich.
Pennant—The Wm. Powell Co., Cincinnati, O.
Pickering—The Pickering Governor Co., Portland, Conn.
Richardson Phenix Co., Milwaukee, Wis.
Rochester—Green, Tweed & Co., New York, N. Y.
Roper Geo. D., Corp., Rockford, Ill. "Trahern."
Sherwood Mfg. Co., Buffalo, N. Y. (Trade names—Felthousen (hand), Hart (force sight feed), Lever, Sherwood.)
Superior—American Lubricator Co., Detroit, Mich.
Swift—The Swift Lubricator Co., Elmira, N. Y.
Thompson—Star Brass Mfg. Co., Boston, Mass.
Twinvolute—The John H. McGowan Co., Cincinnati, Ohio.
Walrus—The D. T. Williams Valve Co., Cincinnati, O.

PUMPS, OIL, TRANSFER.

American Can Co., New York, N. Y.
Chapin, R. E., Mfg. Works, Batavia, N. Y.
New Delphos Mfg. Co., The, Delphos, O.

Hart Oil Pumps

insure dependable lubrication

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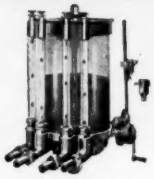

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Roots, P. H. & F. M., Co., Connersville, Ind.
Roper Geo. D., Corp., Rockford, Ill. "Trahern."

PUMPS, PLUMBERS' FORCE.

Always Reliable—Otto Bernz Co., Newark, N. J.
Autoquip Mfg. Co., Inc., Rochester, N. Y.
Belfield, H. & Co., Philadelphia, Pa.
Beekman—Garrison-Heiland Corp., New York, N. Y.
Bishop & Babcock Co., The, Cleveland, O.
Coleman, Allan J., Chicago, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
The Handy Plumber—Autoquip Mfg. Co., Inc., Rochester, N. Y.
Hawkeye—Chandler Pump Co., Cedar Rapids, Iowa.
Kennedy, J. E., New York, N. Y. (Trade names—Big Giant, Little Giant.)
Lawless—Newark Brass Works, Newark, N. J.
Penn—Pennsylvania Furnace & Iron Co., Warren, Pa.
Perkes, Chas., Co., Philadelphia, Pa.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Wolff Mfg. Corp., Chicago, Ill.
Woodward-Wanger Co., Philadelphia, Pa.

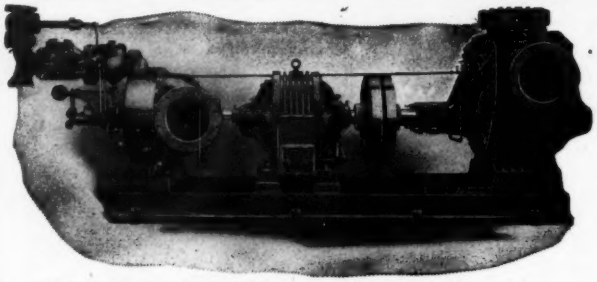
PUMPS, PLUNGER, OUTSIDE PACKED.

American-Marsh—American Steam Pump Co., Battle Creek, Mich.
Cameron, A. S., Steam Pump Works, New York. "Cameron."
Canton-Hughes—Chalmers Pump & Mfg. Co., Lima, Ohio.
Connellsville Machine & Car Co., Connellsville, Pa.
Cook, A. D., Inc., Lawrenceburg, Ind.
Davidson, M. T., Co., New York, N. Y.
Gardner Governor Co., Quincy, Ill.
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
Hill Pump & Turbine Works, Anderson, Ind.
Luitwieler Pumping Engine Co., Rochester, N. Y.
McGowan—John H. McGowan Co., The, Cincinnati, Ohio.
Myers—F. E. Myers & Bro. Co., Ashland, O.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y. "Rumsey."
Russell—The Thomas Laughlin Co., Portland, Me.
Standard—Lucas-Miner Pump Co., The, Dayton, O.
Union Steam Pump Co., Battle Creek, Mich.
Wagener Steam Pump Co., Canton, O.
Worthington Pump & Machinery Corp., New York.

PUMPS, POWER, BELT, ENGINE OR MOTOR DRIVEN.

(See also "Pumps, Artesian or Deep Well.")

Aldrich—Aldrich Pump Co., Allentown, Pa.
Allis-Chalmers Mfg. Co., Milwaukee, Wis.
American-Marsh—American Steam Pump Co., Battle Creek, Mich.
American—The American Well Works, Aurora, Ill.
Atlantic—Waldo Bros. & Bond Co., Boston, Mass.
Backus Water Motor Co., **Newark, N. J.**
Barnes Mfg. Co., **The, Mansfield, O.**
Bishop & Babcock Co., The, Cleveland, O.
Blackmer Rotary Pump Co., Grand Rapids, Mich.
Blake Pump & Condenser Co., **Fitchburg, Mass.**
Boicourt—Midland Mfg. Co., Fort Worth, Texas.
Bowser & Co., S. F., Fort Wayne, Ind.
Boyts-Porter & Co., Philadelphia, Pa.
Buckeye—Mast, Foos & Co., Springfield, O.
Buckeye Pump & Mfg. Co., The, Columbus, Ohio. "Buckeye."
Buffalo Steam Pump Co., Buffalo, N. Y. "Buffalo."
Burlingame, A., Co., Worcester, Mass.
C. H. & E. Manufacturing Co., Inc., Milwaukee, Wis.
Canton-Hughes—Chalmers Pump & Mfg. Co., Lima, Ohio.
A. S. Cameron Steam Pump Works, New York, N. Y. "Cameron."
Champion—The Cleveland Faucet Co., Cleveland, O.
Chicago Well Supply Co., Chicago, Ill.
Connellsville Mfg. & Mine Sup. Co., Connellsville, Pa.
Connersville Blower Co., Connersville, Ind.
Consolidated Mfg. Co., Dayton, O.
Cook, A. D., Inc., Lawrenceburg, Ind.
Davis—Reading Heater & Supply Co., Reading, Pa.
Dean Hill Pump Co., Anderson, Ind.
Domestic—Domestic Engine & Pump Co., Shippensburg, Pa.
Douglas—W. & B. Douglas, Middletown, Conn.
Dow Pump & Diesel Engine Co., San Francisco, Cal.
Downie—Keystone Driller Co., Beaver Falls, Pa.
Du Bois Iron Works, Du Bois, Pa.
Economy Pumping Machinery Co., Chicago, Ill.
Edson—Edson Mfg. Co., Boston, Mass.
Erie Pump & Engine Works, Inc., Medina, N. Y.
Evinrude—Evinrude Motor Co., Milwaukee, Wis.
Fairbanks, Morse & Co., Chicago, Ill. "Torrent," "Typhoon," "Eclipse Pumper," "Mist."
Farrar Pump & Machinery Co., St. Louis, Mo. (Duplex & Triplex.)
Field Force Pump Co., Elmira, N. Y. (Trade names—Senior Triplex, Junior Triplex, Empire Duplex, Royal Triplex.)
Foos Gas Engine Co., Springfield, O.
Foster Pump Works, Brooklyn, N. Y.
Fuller & Johnson Mfg. Co., Madison, Wis.
Gardner Governor Co., Quincy, Ill.
General Electric Co., Schenectady, N. Y.
Gilbert & Barker Mfg. Co., Springfield, Mass.
Glendora—Worthington Pump & Machinery Co., New York.
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
Goyne—Goyne Steam Pump Co., Ashland, Pa.
Hall Pump & Compressor Co., Pittsburgh, Pa.
Heller-Aller Co., The, Napoleon, O.
Hercules—The Hercules Corp., Evansville, Ind.
Hinman & Co., D. A., Sandwich, Ill.
Holland—Holland Machine Co., New York, N. Y.
Hope Forge & Machine Co., Mt. Vernon, O.
Hoosier—Flint & Walling Mfg. Co., Kendallville, Ind.
Hough, The, Chas. N., Mfg. Co., Franklin, Pa. (Oil well.)
Humphryes Mfg. Co., The, Mansfield, O.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Imperial, Jupiter—The Barnes Mfg. Co., Mansfield, Ohio.
King Brothers, Syracuse, N. Y. (with gas engine). "Barber."
Kinney—Kinney Mfg. Co., Boston, Mass.
Klotz, Aug. H., Co., Sandusky, O.
Lawrence Pump & Engine Co., Lawrence, Mass.
Leader Iron Works, Decatur, Ill.
Lindley-Dunning Mfg. Co., Germantown, Philadelphia, Pa.
Lucas-Miner Pump Co., Dayton, O.
Luitwieler Pumping Engine Co., Rochester, N. Y
M. & B.—Masseth Packer & Machine Works, Butler, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
McGowan—John H. McGowan Co., The, Cincinnati, Ohio.
McLaughlin—Geo. G. McLaughlin Mfg. Co., Boston.
Midland Mfg. Co., Fort Worth, Tex. "Boicourt."
Moloch Company, Kaukauna, Wis.
Monarch—The Monarch Engineering Co., Dayton, Ohio.
Monitor—The Humphryes Mfg. Co., Mansfield, O.
Myers, F. E., & Bro., Co., Ashland, O. Trade names—**High Duty, Imperial, Century, Defiance, Bulldozer, Pitman.**
National Transit Pump & Machine Co., Oil City, Pa. "Transit."
Novo—Novo Engine Co., Lansing, Mich.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.
Otto Engine Mfg. Works, Philadelphia, Pa.
Park Mfg. Co., The, Charlotte, N. C.
Pattin Bros., Co., The, Marietta, O. "Trumbone."
Paul—Ft. Wayne Engineering & Mfg. Co., Ft. Wayne, Ind.
Peters Pump Co., Kewanee, Ill.
Plant Engineering & Equipment Co., Brooklyn, N. Y.
Price, G. W., Pump & Engine Co., San Francisco.
Pyramid—Goulds Mfg. Co., The, Seneca Falls, N. Y.
Quimby—Wm. E. Quimby, Inc., Newark, N. J.
Red Jacket Mfg. Co., Davenport, Iowa. (Trade names—Never-Fail, Red Jacket, So-Easy-To-Fix.)
Rider-Ericsson Engine Co., New York, N. Y.
Roberts Gem—Geo. J. Roberts & Co., Dayton, O.
Roots—P. H. & F. M. Roots Co., Connersville, Ind.



Kinney Steam Jacketed Pump with steam turbine drive

Kinney Manufacturing Co., Boston, Mass.

TRADE MARK
Kinney
REG. U.S. PAT. OFF.

Rotating Plunger Pumps for pumping heavy or light viscous materials. Asphalts, Tars, Crude Oils, Fuel Oils, Lubricating Oils, Greases, Molasses, Glucose, Lards, etc.

Roper, Geo. D., Corp., Rockford, Ill. "Soo," "Trahern."
Roturbo—Manistee Iron Works Co., Manistee, Mich.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y. (Direct connected.) "Rumsey."
Sandusky Foundry & Machine Co., The, Sandusky, O.
Schramm, Inc., Westchester, Pa.
Scranton Pump Co., Scranton, Pa.
Stine, J. C., Co., The, Tyrone, Pa.
Stiteler, Wm. L., Philadelphia, Pa.
Texas Mfg. Co., Fort Worth, Tex.
Traylor Engineering & Mfg. Co., Allentown, Pa.
Union Steam Pump Co., Battle Creek, Mich.
V. & K.—Vaile & Kimes, Dayton, O.
Wagener Steam Pump Co., Canton, O.
Ward-Love Pump Corp., Rockford, Ill. "Warlo."
Warren Steam Pump Co., Warren, Mass.
Weinman Pump Mfg. Co., Columbus, O.
Westco—Westco-Chippewa Pump Co., Davenport, Iowa.
Western Engineering Co., Davenport, Iowa.
Wilson-Snyder Mfg. Co., Pittsburgh, Pa.
Worthington—Worthington Pump & Machinery Corp., New York, N. Y.
Yeomans—Yeomans Bros., Chicago, Ill.
Young Pump Co., Michigan City, Ind.

PUMPS, PRESSURE.

Aldrich Pump Co., Allentown, Pa.
Dean Hill Pump Co., Anderson, Ind.
Gardner Governor Co., Quincy, Ill.
Hydraulic Press Mfg. Co., The, Columbus, O. (hydraulic). "H. P. M."
Roper, Geo. D., Corp., Rockford, Ill. "Trahern."
Wagener Steam Pump Co., Canton, O.
Warren Steam Pump Co., Warren, Mass.

PUMPS, PRESSURE BOOSTING AND WATER CIRCULATING.

Economy Pumping Machinery Co., Chicago, Ill.
Gardner Governor Co., Quincy, Ill.
Roper, Geo. D., Corporation, Rockford, Ill.
Taber Pump Co., Buffalo, N. Y.
Trane Co., The, LaCrosse, Wis.
Westco—Westco-Chippewa Pump Co., Davenport, Iowa.

PUMPS, RATCHET, HANDLE.

Myers—F. E. Myers & Bro. Co., Ashland, O.
Roper, Geo. D., Corporation, Rockford, Ill.
Rumsey—Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Wagener Steam Pump Co., Canton, O.
Worthington Pump & Machinery Corp., New York.

PUMPS, RECEIVER.

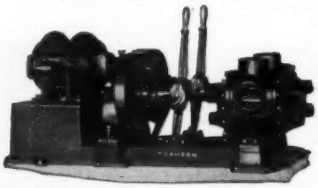
Lawrence Pump & Engine Co., Lawrence, Mass.
Wright-Austin Mfg. Co., Detroit, Mich.

PUMPS, ROTARY.
(See also "Pumps, Centrifugal.")

American Machine & Foundry Co., Brooklyn, N. Y.
American-Marsh—American Steam Pump Co., Battle Creek, Mich.
Barnes Mfg. Co., The, Mansfield, O.
Beach-Russ Co., New York, N. Y. "Beach-Russ."
Blackmer Rotary Pump Co., Grand Rapids, Mich.
Bull Dog—The John H. McGowan Co., Cincinnati, O.
Chowning Regulator Corp., Corning, N. Y.
Connersville Blower Co., Connersville, Ind. "Connersville Cycloidal."
Curtis—Pittsburgh Machine Tool Co., Braddock, Pa.
Dayton—Dayton Pump & Mfg. Co., Dayton, O.
Douglas, W. & B., Middletown, Conn.
Excelsior—Foster Pump Works, Brooklyn, N. Y.
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
Green, Wilbraham, Blower Co., Pottstown, Pa. "Old Reliable."
Hall Mfg. Co., Cedar Rapids, Iowa.
Hunt, Rodney, Machine Co., Orange, Mass. "Hunt."
King Bros., Syracuse, N. Y. (with gas engine). "Barber."
Kinney Manufacturing Co., Boston, Mass.
Lammert & Mann Co., Chicago, Ill.
Leiman Bros., New York, N. Y.
Loane—Loane Engineering Co., Baltimore, Md.
Lobee Pump & Machinery Co., Buffalo, N. Y. "Lobee."
McDonald Mfg. Co., A. Y., Dubuque, Iowa.
Moloch Company, Kaukauna, Wis.
Niles Machine Co., Lebanon, N. H.
Northern Fire Apparatus Co., Minneapolis, Minn. "Northern."
Novo—Novo Engine Co., Lansing, Mich.
Oberdorfer, M. L., Brass Co., Syracuse, N. Y.

TRAHERN **Rotary Gear Pumps** TRAHERN

For All Purposes



Coolant Pumps for metal working machines.
Fuel Oil Pumps for industrial and domestic oil burners.
Gasoline and Oil Pumps for refineries, bulk stations, etc.
Steam Jacketed Rotary Pumps for pumping glucose, asphaltum tarvia, roofing materials, etc.
Power Rotary Pumps for general water supply and circulating purposes in factories, textile works, public buildings, etc.
Hand Rotary Pumps for transferring water, gasoline, oil, etc., used on wood barrels, steel drums, tank wagons, etc.
Lift and Force Pumps single and double acting for hand and power use.

Working Heads for volume water supply.
Pump Jacks, Garage Pumps, Water Supply Systems and Centrifugal Pumps.

GEO. D. ROPER CORP.
Rockford, Illinois

PUMPS FOR PERMANENCE

Oil Well Supply Co., Pittsburgh, Pa.
Perfection—Perfection Mfg. Co., Minneapolis, Minn.
P. H. & F. M. Roots Co., Connersville, Ind. "Root's."
Roper, Geo. D., Corp., Rockford, Ill. "Soo," "Trahern."
Rumsey Pump Co., Ltd., Seneca Falls, N. Y. "Rumsey."
Schramm—Schramm, Inc., West Chester, Pa.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Taber—Taber Pump Co., Buffalo, N. Y.
Trimount—Trimount Rotary Power Co., East Dedham, Mass.
Viking—The Viking Pump Co., Cedar Falls, Iowa.
Ward-Love Pump Corp., Rockford, Ill. "Warlo."
Wheeler, Edwards—The Wheeler Condenser & Engineering Co., Carteret, N. J.

PUMPS, ROTATING PLUNGER TYPE.

Kinney—Kinney Mfg. Co., Boston, Mass.

PUMPS, SAND AND GRAVEL.

American Well Works, Aurora, Ill.
Buffalo Steam Pump Co., Buffalo, N. Y.
Byron Jackson—Byron Jackson Pump Mfg. Co., Los Angeles, Cal.
Dean Hill Pump Co., Anderson, Ind.
Lawrence Pump & Engine Co., Lawrence, Mass.
Kingsford Foundry & Machine Co., Oswego, N. Y.
Nye Steam Pump & Machinery Co., Chicago, Ill.
Spang—Spang & Co., Butler, Pa.
Wilfley, A. R., & Sons, Denver, Colo.

PUMPS, SCREW TEST.

Byron Jackson—Byron Jackson Pump Mfg. Co., Los Angeles, Cal.
Hill Pump & Turbine Works, Anderson, Ind.
Lonergan, J. E., Co., Philadelphia, Pa.

PUMPS, SHALLOW WELL.

Burke Super Turbine—Decatur Pump Co., Decatur, Ill.
Westco—Westco-Chippewa Pump Co., Davenport, Iowa.

PUMPS, SINKING.

Aldrich Pump Co., Allentown, Pa.
Boyts, Porter & Co., Connellsville, Pa.
Cameron—A. S. Cameron Steam Pump Works, New York.
Davidson, M. T., Co., New York, N. Y.
Emerson Pump & Valve Co., Alexandria, Va.
Erie Pump & Engine Co., Erie, Pa.
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
Marsh—American Steam Pump Co., Battle Creek, Mich.
Pulsometer—Pulsometer Steam Pump Co., New York, N. Y.
Roturbo—Manistee Iron Works Co., Manistee, Mich.
Smith-Vaile—The Platt Iron Works Co., Dayton, O.
Union Steam Pump Co., Battle Creek, Mich.

PUMPS, SPIRAL, HIGH SPEED.

Cramp, Wm., & Sons, Ship & Engine Building Co., Philadelphia, Pa.

PUMPS, SPRAY.

Alert—Lucas-Miner Pump Co., Dayton, Ohio.
American-Marsh—American Steam Pump Co., Battle Creek, Mich.
Armstrong Mfg. Co., The, Huntington, W. Va. "Standard."
Auto-Spray—The E. C. Brown Co., Rochester, N. Y.
Barnes Mfg. Co., The, Mansfield, O. "Perfection."
Berger Mfg. Co., The, Canton, O.
Buckeye—Mast, Foos & Co., Springfield, Ohio.
Chicago Well Supply Co., Chicago, Ill.
Crestline Mfg. Co., Crestline, Ohio.
Deming Co., The, Salem, O. "Bonanza," "Century," "Duplex," "Farmer's Friend," "Gardner's Choice," "Junior," "Major," "Perfect Success," "Planter's Gem," "Planter's Tractor," "Positive," "Prize," "Success," "Samson," "Success Sterling," "Universal Success," "Victory," "Weed."
Domestic Engine & Pump Co., Shippensburg, Pa.
Douglas—W. & B. Douglas, Middletown, Conn.
Field Force Pump Co., Elmira, N. Y. (Trade names—Empire Jr., Empire-King, Handy Dandy, Oakwood.)
Fuller & Johnson, Madison, Wis.
Goulds Pumps Inc., Seneca Falls, N. Y. "Admiral," "Bordeaux," "Combination," "Drednaught," "Emperor," "Fruitall," "Handy," "Invincible," "Pomona," "Standard," "Sturdy," Vice-Admiral."
Kant-Klog—Rochester Spray Pump Co., Rochester, N. Y.
Myers, F. E., & Bro., Ashland, Ohio. (Trade names—Century, Cog Gear, Duplex Automatic, Faultless, Myers Improved, Myers O. K. Perfect, Myers Whitewashing, Triplex Automatic, Imperial, Little Giant, Quadruplex, Junior, Low Down.
Paragon—The Campbell-Hausfeld Co., Harrison, O.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y. "Rumsey's," "Dandy," "Florida," "Superior," "Watch."
Sherman Mfg. Co., H. B., Battle Creek, Mich.
Star Pointer Pump Mfg. Co., Menasha, Wis.
Sunshine—The Crestline Mfg. Co., Crestline, O.
Union Steam Pump Co., Battle Creek, Mich.
Warlo—Ward-Love Pump Corp., Rockford, Ill.
Wilson & Bennett Mfg. Co., Chicago, Ill.

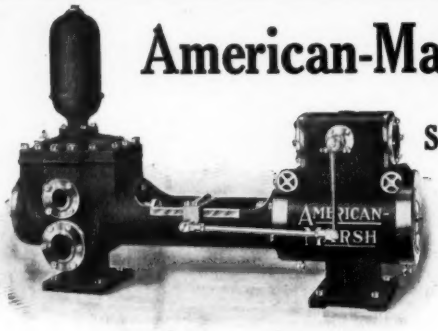
PUMPS, STEAM.

Abbe—Abbe Engineering Co., New York.
Albany—Albany Steam Trap Co., Albany, N. Y.
Allis-Chalmers Co., Milwaukee, Wis.
American-Marsh—American Steam Pump Co., Battle Creek, Mich.
American Well & Prospecting Co., Corsicana, Tex.
American Well Works, The, Aurora, Ill. "American."
Blackmer Rotary Pump Co., Grand Rapids, Mich.
Blake Pump & Condenser Co., Fitchburg, Mass.
Buffalo Steam Pump Co., Buffalo, N. Y. "Buffalo."
Burrows, F. A., Mfg. Co., York, Pa.
Cameron—A. S. Cameron Steam Pump Works, New York.
Canton-Hughes—Chalmers Pump & Mfg. Co., Lima, Ohio.
Cardwell Machine Co., The, Richmond, Va.
Chicago Knowles—Furness Bros. Co., Chicago, Ill.
C. H. Wheeler—C. H. Wheeler Mfg. Co., Philadelphia, Pa.
Codd Co., E. J., Baltimore, Md.
Cook, A. D., Inc., Lawrenceburg, Ind.
Davidson, M. T., Co., New York, N. Y.
Davidson—Ernst & Co., Newark, N. J.
Dean Hill Pump Co., Anderson, Ind.
Downie—Keystone Driller Co., Beaver Falls, Pa.
Du Bois Iron Works, Du Bois, Pa.
Emerson—The Emerson Pump & Valve Co., Inc., Alexandria, Va.
Fairbanks Morse & Co., Chicago. "Fairbanks-Morse."
Farrar Pump & Machinery Co., St. Louis, Mo.
Filer & Stowell Co., Milwaukee, Wis.
Foster—Foster Pump Works, Brooklyn N. Y.
Gardner Governor Co., The, Quincy, Ill.
Garrett, W. D., & Co., New York.
Goyne—The Goyne Steam Pump Co., Ashland, Pa.
Grant Iron Works, Mahonoy City, Pa.
Guild & Garrison, Brooklyn, N. Y.
Hall Pump & Compressor Co., Pittsburgh, Pa.
Henderson Iron Wks. & Supply Co., The, W. K., Shreveport, La.
Hooker Steam Pump Works, St. Louis, Mo.
Hydraulic Press Mfg. Co., The, Columbus, O. (high pressure.) "H. P. M."
Jamieson, M. W., & Co., Warren, Pa.
Lucas-Miner Pump Co., The, Dayton, O.
Lucey Mfg. Corp., New York, N. Y. "Rex Duplex."
McFeeley—Tranter Mfg. Co., Pittsburgh, Pa.
McGowan—John H. McGowan Co., The, Cincinnati, Ohio.
Mecklenburg Iron Works, Charlotte, N. C.
Mud Hog—Oil Well Supply Co., Pittsburgh, Pa.
National Steam Pump Co., The, Upper Sandusky, O.
Nye—Nye Steam Pump & Mach'y Co., Chicago, Ill.
Park Mfg. Co., The, Charlotte, N. C.
Plant Engineering & Equipment Co., Brooklyn, N. Y.
Pulsometer—Pulsometer Steam Pump Co., New York, N. Y.
Reilly—Vogt Brothers Mfg. Co., Louisville, Ky.
Roturbo—Manistee Iron Works Co., Manistee, Mich.
Scranton—Scranton Pump Co., Scranton, Pa.
Shriver—T. Shriver & Co., Harrison, N. J.
Silent—Centrifugal Pump Co., New York, N. Y.
Transit—National Transit, Pump and Machine Co., Oil City, Pa.
Union Steam Pump Co., Battle Creek, Mich. "Burnham," "Moore," "Union."
Wagener Steam Pump Co., Canton, O.
Warren Steam Pump Co., Warren, Mass.
Watson-Stillman Co., The, New York, N. Y.
Weinman Pump Works, Columbus, O.
Wheeler, C. H., Mfg. Co., Philadelphia, Pa.
Wilson-Snyder Mfg. Co., Pittsburgh, Pa.
Wood & Co., R. D., Philadelphia, Pa.
Worthington Pump & Machinery Corp., New York. "Worthington."
Young Pump Co., Michigan City, Ind.
Yough—Boyts, Porter & Co., Connellsville, Pa.

PUMPS, STEAM TURBINE DRIVEN.

Aetna Engineering Co., Ashaway-Westerly, R. I.
Byron Jackson—Byron Jackson Pump Mfg. Co., Los Angeles, Cal.
Coppus—Coppus Engineering & Equipment Co., Worcester, Mass.
Dayton-Dowd Company, Quincy, Ill.
Kerr Turbine Co., Wellsville, N. Y.
Kinney—Kinney Mfg. Co., Boston, Mass.
Krogh Pump & Machinery Co., San Francisco, Calif.

American-Marsh Pumping Machinery



American-Marsh Boiler Feed Pump

SIMPLEX - DUPLEX - CENTRIFUGAL

When purchasing American-Marsh Simplex Pumps, you are assured of the utmost in simplicity and efficiency. They are heavy and rugged in construction and are fully bronze fitted, at regular prices, including heavy cast bronze removable water cylinder bushings. The steam valves are of the balanced piston type fitted with expansion rings.

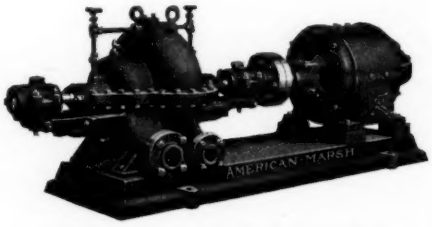
The AMERICAN-MARSH Centrifugal Pump is built with modern shop facilities, and only the highest grade of material and workmanship is used in the construction. Every pump is carefully tested before leaving the factory, and is guaranteed to do the work for which it is recommended.

If interested in:

Boiler Feed Pumps **Elevator Pumps** **Vacuum Pumps**
Centrifugal Pumps **Power Pumps** **Jet Condensers**
Steam and Motor Driven Air Compressors

Ask for Catalog

American Steam Pump Company
Battle Creek, Michigan



American-Marsh Two-stage Centrifugal Pump

Lawrence Pump & Engine Co., Lawrence, Mass.
Power, Simplex—Power Turbo Blower Co., New York, N. Y.
Union—Union Steam Pump Co., Battle Creek, Mich.
Westco—Westco-Chippewa Pump Co., Davenport, Iowa.

PUMPS, SUMP.

(See also "Drainers, Cellar")

Aldrich—Aldrich Pump Co., Allentown, Pa.
American-Marsh—American Steam Pump Co., Battle Creek, Mich.
American—The American Well Works, Aurora, Ill.
Ansonia-Peerless—Ansonia Corporation, New York, N. Y.
Centrifugal Pump Co., New York, N. Y.
Douglas—W. & B. Douglas, Middletown, Conn.
Dean Hill Pump Co., Anderson, Ind.
Economy Pumping Machinery Co., Chicago, Ill.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Lawrence Pump & Engine Co., Lawrence, Mass.
Penberthy Injector Co., Detroit, Mich.
Quimby, Wm. E., Inc., Newark, N. J.
Rider-Ericsson Engine Co., New York.
Roper, Geo. D., Corp., Rockford, Ill. "Trahern."
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Taber Pump Co., Buffalo, N. Y.
The Weinman Pump Mfg. Co., Columbus, O. "Weinman."
Zurn, J. A., Mfg. Co., Erie, Pa. "Ideal."

PUMPS, SYPHON.

Blakeslee Mfg. Co., Duquoin, Ill.
Barnes Mfg. Co., The, Mansfield, O.
Buckeye—Mast, Foos & Co., Springfield, O.
Challenge Co., Batavia, Ill. "Challenge."
Fairbanks, Morse & Co., Chicago, Ill.
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
Humphryes Mfg. Co., The, Mansfield, O.
Myers—F. E. Myers & Bro. Co., Ashland, O.
Resisto Pipe & Valve Co., East Cambridge, Mass. "Resisto."
Rumsey Pump Co., Ltd., Seneca Falls, N. Y. "Rumsey."
W. & McD.—Watson & McDaniel Co., Philadelphia, Pa.
Victoria Metal Co., Erie, Pa.

PUMPS, TANK OR LOW SERVICE.

Aldrich Pump Co., Allentown, Pa. "Aldrich."
American-Marsh—American Steam Pump Co., Battle Creek, Mich.
Blackmer Rotary Pump Co., Grand Rapids, Mich.
Buckeye—Mast, Foos & Co., Springfield, O.
Buffalo Steam Pump Co., Buffalo, N. Y.
A. S. Cameron Steam Pump Works, New York. "Cameron."
Davidson, M. T., Co., New York, N. Y.
Davis-Hansen Pump Co., Oshkosh, Wis.
Dayton-Dowd Co., Quincy, Ill.
Dean Hill Pump Co., Anderson, Ind.
Fairbanks, Morse & Co., Chicago, Ill.
Foster Pump Works, Brooklyn, N. Y.
The Gardner Governor Co., Quincy, Ill. "Gardner."
Goulds Pumps, Inc., Seneca Falls, N. Y. (Trade names—Challenge, New Alert, Oliver, Thresher, Utility).
Hart—Sherwood Mfg. Co., Buffalo, N. Y.
Hoosier—Flint & Walling Mfg. Co., Kendallville, Ind.
Humphryes Mfg. Co., The, Mansfield, O.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Low Down—Myers, F. E., & Bro. Co., Ashland, O.
Lucas-Miner Pump Co., The, Dayton, O.
Luitweiler Pumping Engine Co., Rochester, N. Y.
Manistee Iron Works Co., Manistee, Mich.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
John H. McGowan Co., The, Cincinnati, O. "McGowan."
National Steam Pump Co., Upper Sandusky, Ohio.
Roper, Geo. D., Corp., Rockford, Ill. "Soo," "Trahern."
Rumsey Pump Co., Ltd., Seneca Falls, N. Y. "Rumsey."
Terry Steam Turbine Co., The, Hartford, Conn.
Union Steam Pump Co., Battle Creek, Mich.
Vogt Brothers Mfg. Co., Louisville, Ky.
Warlo—Ward-Love Pump Corp., Rockford, Ill.
Warren Steam Pump Co., Warren, Mass.
Wilson & Bennett Mfg. Co., Chicago, Ill.

PUMPS, THRESHER TANK.

Barnes Mfg. Co., Mansfield, O.
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
Humphryes—The Humphryes Mfg. Co., Mansfield, Ohio.
Myers, F. E., & Bro. Co., Ashland, O. (Trade names—Cog Gear, Faultless, Low Down.)
Roper, Geo. D., Corp., Rockford, Ill. "Trahern."
Rumsey Pump Co., Ltd., Seneca Falls, N. Y. "Rumsey."

PUMPS, VACUUM.

Abbe Engineering Co., New York, N. Y.
Alberger—Alberger Pump & Condenser Co., New York.
Aldrich Pump Co., Allentown, Pa. "Aldrich."
American Machine & Foundry Co., Brooklyn, N. Y.
Allen & Billmyre Company, Inc., New York, N. Y.
American-Marsh—American Steam Pump Co., Battle Creek, Mich.
Automatic Vacuum Pump Co., Chicago, Ill.
Baker-Hansen Mfg. Co., Oakland, Calif. "Baker Rotary."
Beach-Russ Co., New York, N. Y. (Heating and Laboratory.) "Beach-Russ."
Bishop & Babcock Co., The, Cleveland, O.
Blakeslee Mfg. Co., DuQuoin, Ill.
Brunner—Brunner Mfg. Co., Utica, N. Y.
Buffalo Steam Pump Co., Buffalo, N. Y., "Buffalo."
Chicago Pneumatic Tool Co., New York, N. Y. (reciprocating). "C. P."
Chicago Pump Co., Chicago, Ill.
Connersville Blower Co., Connersville, Ind. "Connersville Cycloidal."
Crowell Mfg. Co., Brooklyn, N. Y.
Davidson, M. T., Co., New York, N. Y.
Dunham—C. A. Dunham Co., Inc., Chicago, Ill.
Duplex Mfg. Co., Philadelphia, Pa.
Economy—Economy Pumping Machinery Co., Chicago, Ill.
Emerson—The Emerson Pump & Valve Co., Inc., Alexandria, Va.
Fairhurst—American Air Compressor Works, Brooklyn, N. Y.
Foster Pump Works, Brooklyn, N. Y.
Gardner Governor Co., The, Quincy, Ill.
Garrett, W. D., & Co., New York.
General Compressed Air & Vacuum Machinery Co. St. Louis, Mo.
General Electric Co., Schenectady, N. Y.
Glamorgan Pipe & Foundry Co., Lynchburg, Va.
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
Guild & Garrison, Brooklyn, N. Y.
Hall—Hall Steam Pump Co., Pittsburgh, Pa.
Hypress—L. J. Wing Mfg. Co., New York, N. Y.
Ingersoll-Rand Imperial—Ingersoll-Rand Co., New York, N. Y.
Kerr—Kerr Machinery Corp., Detroit, Mich.
Kinney Mfg. Co., Boston, Mass.
Koerting Universal—Schutte & Koerting Co., Philadelphia, Pa.
Lammert & Mann Co., Chicago, Ill.
Lebran—Kruger & Blind Co., Philadelphia, Pa.
Leiman Bros., New York, N. Y. (rotary).
McAlear Mfg. Co., Chicago, Ill. "McAlear."
John H. McGowan Co., The, Cincinnati, O. "McGowan."
Manistee Iron Works Co., Manistee, Mich.
May-Nelson Mfg. Co., Washington, D. C.
Mesta—Mesta Machine Co., Pittsburgh, Pa.
Minster Machine Co., The, Minster, O.
Nash Engineering Co., South Norwalk, Conn. (hydro-turbine). "Hytor."
National Steam Pump Co., Upper Sandusky, Ohio.
Niles Machine Company, Lebanon, N. H.
Pennsylvania Pump & Compressor Co., Easton, Pa.
Plant Engineering & Equipment Co., Brooklyn, N. Y.
Powers Regulator Co., Chicago, Ill.
Provo—Provost Engineering Corp., Brooklyn, N. Y.
Receiver—Swaby Mfg. Co., Chicago, Ill.
Reliable—The Cleveland Faucet Co., Cleveland, O.
Roots—P. H. & F. M. Roots Co., Connersville, Ind.
Ross—Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Roturbo—Manistee Iron Works Co., Manistee, Mich.
Rumsey—Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Schenck Mfg. & Supply Co., Parkers Landing, Pa.
Smith-Valle—The Platt Iron Works Co., Dayton, O.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Sparks—McAlear Mfg. Co., Chicago, Ill.
Sterling—Sterling Engineering Co., Milwaukee, Wis.
Terry Steam Turbine Co., Hartford, Conn.
Thompson Mfg. Co., Des Moines, Iowa.
Trane Co., The, La Crosse, Wis.
Trimount—Trimount Rotary Power Co., East Dedham, Mass.
Union Steam Pump Co., Battle Creek, Mich.
Utility Compressor Co., Adrian, Mich. "Utility."
Vogt Brothers Mfg. Co., Louisville, Ky.
Wagener Steam Pump Co., Canton, O.
Warren Steam Pump Co., Warren, Mass.
Weil Pump Company, Chicago, Ill.
Weinman Pump Mfg. Co., The, Columbus, O.
Wheeler, C. H., Mfg. Co., Philadelphia, Pa. "Radojet," "Rotrex."
Wheeler, Edwards—The Wheeler Condenser & Engineering Co., Carteret, N. J.
Wilbraham-Green Blower Co., Pottstown, Pa. (Rotary.)
Wilson-Snyder Mfg. Co., Pittsburgh, Pa.
Worthington—Worthington Pump & Machinery Corp., New York.
Wright-Austin Mfg. Co., Detroit, Mich.
Young Pump Co., Michigan City, Ind.

PUMPS, VACUUM, STEAM JET.

Blakeslee Mfg. Co., DuQuoin, Ill.

PUMPS, VACUUM, AIR JET (OR AIR OPERATED).

Blakeslee Mfg. Co., DuQuoin, Ill.

PUMPS, VALVELESS

Gurley Pump & Mfg. Co., Indianapolis, Ind.
Kinney Manufacturing Co., Boston, Mass.
Roper, Geo. D., Corporation, Rockford, Ill.
Westco—Westco-Chippewa Pump Co., Davenport, Iowa.

PUMPS, WATERCLOSET.

Big Giant—J. E. Kennedy, New York, N. Y
Warren Steam Pump Co., Warren, Mass.

PUMPS, WATERWORKS.

Alberger—Alberger Pump & Condenser Co., New York, N. Y.
Aldrich Pump Co., Allentown, Pa. "Aldrich."
American—American Steam Pump Co., Battle Creek, Mich.
American Well Works, Aurora, Ill.
Bulldozer—F. E. Myers & Bro. Co., Ashland, O.
Buffalo Steam Pump Co., Buffalo, N. Y. "Buffalo."
A. S. Cameron Steam Pump Works, New York. "Cameron."
Cook, A. D., Inc., Lawrenceburg, Ind.
Dayton-Dowd Co., Quincy, Ill.
Dean Hill Pump Co., Anderson, Ind.
Economy Pumping Machinery Co., Chicago, Ill.
Erie Pump & Engine Works, Inc., Medina, N. Y.
Fairbanks, Morse & Co., Chicago, Ill.
Gardner Governor Co., The, Quincy, Ill. "Gardner."
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
Kingsford Foundry & Machine Works, Oswego, N. Y.
Luitwieler Pumping Engine Co., Rochester, N. Y.
John H. McGowan Co., The, Cincinnati, O. "McGowan."
Manistee Iron Works Co., Manistee, Mich. "Roturbo."
Marsh—American Steam Pump Co., Battle Creek, Mich.
Midland Mfg. Co., Fort Worth, Tex. "Boicourt."
Morris Machine Works, Baldwinsville, N. Y.
Myers—F. E. Myers & Bro. Co., Ashland, O.
National Transit Pump & Machine Co., Oil City, Pa.
Roberts Gem—Geo. J. Roberts Co., Dayton, O.
Ross Heater & Mfg. Co., Buffalo, N. Y.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y. "Rumsey."
Terry Steam Turbine Co., Hartford, Conn.
Union Steam Pump Co., Battle Creek, Mich.
Vogt Brothers Mfg. Co., Louisville, Ky.
Wagener Steam Pump Co., Canton, O.
Worthington Pump & Machinery Co., New York.

PUMPS, WRECKING.

Buffalo Steam Pump Co., Buffalo, N. Y.

PUNCHERS, COAL.

New Ingersoll—Ingersoll-Rand Co., New York.
Pneumelectric Corp., The, Syracuse, N. Y.
Weinman Pump Mfg. Co., Columbus, Ohio.

PUNCHES, BACKING OUT.

Duffy Manufacturing Co., Chicago, Ill.

PUNCHES, BEAM AND RAIL.

Chambersburg Engineering Co., Chambersburg, Pa.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Schatz Mfg. Co., The, Poughkeepsie, N. Y.
Watson-Stillman Co., The, New York, N. Y.

PUNCHES, BELL CENTERING.

Goodell Pratt Company, Greenfield, Mass.

PUNCHES, BELTING.

Always Reliable—Otto Bernz Co., Inc., Newark, N. J.
Atkins, E. C., & Co., Indianapolis, Ind. "Rogers."
Buffum Tool Co., Louisiana, Mo.
Diener Mfg. Co., Geo. W., Chicago, Ill.
Hercules—Peck, Stow & Wilcox Co., Southington, Conn.
Irvington Mfg. Co., Irvington, N. J.
Johnson, Wm., Firm of, Newark, N. J.
Kerr & Co., Inc., New York, N. Y.
L. X.—Manufacturers' Belt Hook Co., Chicago, Ill.
Rogers—E. C. Atkins & Co., Indianapolis, Ind.
Sayre, L. A., Company, Newark, N. J.
Semco—Smith & Egge Mfg. Co., The, Bridgeport, Conn.
Smith, Otis A., Rockfall, Conn.
Stimpson Co., Edwin B., New York, N. Y.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Victor Balata & Textile Belting Co., New York, N. Y. "Petrol."

PUNCHES, BELT POWER.

(See also "Presses, Punching.")

Beloit—Hendley & Whittemore Co., Beloit, Wis.
Buffum Tool Co., Louisiana, Mo.
Covington Machine Co., Inc., Covington, Va.
Dikeman Mfg. Co., Norwalk, Conn.
Lysholm—Norbom Engineering Co., Philadelphia, Pa.
Morrill, Apex—Chas. Morrill, New York, N. Y.
Henry Pels Co., New York, N. Y. "Pels."
Smith & Egge Mfg. Co., Bridgeport, Conn.
Thomas Spacing Machine Co., Pittsburgh, Pa. (vertical).

PUNCHES, CENTER.

B. & S.—The Billings & Spencer, Hartford, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I.
Buck Bros., Millbury, Mass.
Buffum Tool Co., Louisiana, Mo.
Bullock Mfg. Co., Springfield, Mass.
Carver, W. C., Tool Works, Spring Valley, N. Y.
Cornwell—The Cornwell Quality Tools Co., Cuyahoga Falls, Ohio.
Cronk—The Cronk & Carrier Mfg. Co., Montour Falls, N. Y.
Dasco—Damascus Steel Products Co., Rockford, Ill.
Easy Hold—Millers Falls Co., Millers Falls, Mass.
Elmore—Chapin-Stephens Co., Pine Meadow, Conn.
Goodell-Pratt Co., Greenfield, Mass.
Hargrave—Cincinnati Tool Co., Cincinnati, O.
Heartley Machine, Variety Iron & Tool Works, Toledo, O.
Horseshoe—The Stanley Rule & Level Plant, Atha Dept., New Britain, Conn.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Irvington Mfg. Co., Irvington, N. J.
Jennings, C. E., & Co., New York, N. Y.
Johnson, Wm., Firm of, Newark, N. J.
Marcy Tool Works, Inc., Putnam, Conn. "Marcy."
Mephisto—W. A. Ives Mfg. Co., Wallingford, Conn.
Moore & Moore, Inc., Reading, Pa.
Mound—Mound Tool Co., St. Louis, Mo.
O.K.—Millers Falls Co., Millers Falls, Mass.
Southington Mfg. Co., Southington, Conn.
Starrett, L. S., Co., The, Athol, Mass.
Syracuse Twist Drill Co., Syracuse, N. Y.
Tuck Mfg. Co., Brockton, Mass.
Union Tool Co., Orange, Mass.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Vichek Tool Co., The, Cleveland, O.

PUNCHES, DRIFT.

Cincinnati Tool, The, Cincinnati, Ohio. "Hargrave."

PUNCHES, HAND POWER.

Armstrong-Blum Mfg. Co., Chicago, Ill.
B. & S.—The Billings & Spencer Co., Hartford, Conn.
Badger—Rock River Machine Co., Janesville, Wis.
Badger State Machine Works, Beloit, Wis. "Badger State."
Bates Mfg. Co., The, Orange, N. J. "Bates Ajax," "Bates Samson."
Beloit—Hendley & Whittemore Co., Beloit, Wis.
The Bench—The Bench Machine Tool Co., Philadelphia, Pa.
Black Giant—Luther Mfg. Co., Inc., Olean, N. Y.
Bourne-Fuller Co., Cleveland, O.
Buffalo Forge Co., Buffalo, N. Y.
Buffum Tool Co., Louisiana, Mo.
Champion Blower & Forge Co., The, Lancaster, Pa.
Cleveland Punch & Shear Works, Cleveland, O.
Clough, R. M., Meriden, Conn.
Danzer Metal Works, Hagerstown, Md.
Diamant Tool & Mfg. Co., Inc., Newark, N. J.
Elmore—The Chapin-Stephens Co., Pine Meadow, Conn.
Excelsior Tool & Machine Co., East St. Louis, Ill. "Excelsior."
Goodell-Pratt Co., Greenfield, Mass.
Heartley Machine, Variety Iron & Tool Works, Toledo, O.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Kidder, J. F., Mfg. Co., Burlington, Vt. "Little Blacksmith."
Little Giant—Excelsior Tool & Machine Co., East St. Louis, Ill.
Lovejoy Tool Works, Chicago, Ill.
Mayhew Steel Products, Inc., New York.
Morrill, Apex—Chas. Morrill, New York, N. Y.
Niagara Machine & Tool Works, Buffalo, N. Y.
Oswego Tool Co., Inc., The, Oswego, N. Y.
Pels—Henry Pels & Co., New York, N. Y.
Plymouth—Plymouth Foundry & Machine Co., Plymouth, Wis.
Schatz Mfg. Co., The, Poughkeepsie, N. Y.
Sharpen Ezy—The H. D. Smith & Co., Plantsville, Conn.
Union—Union Mfg. Co., New Britain, Conn.
Victor—Armstrong Mfg. Co., Waterloo, Ia.

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W. A. WHITNEY MFG. CO.
715 Park Ave., Rockford, Ill.

Watson-Stillman Co., The, New York, N. Y.
Whitman & Barnes Mfg. Co., Akron, O.
Whitney Metal Tool Co., Inc., Rockford, Ill. (ball bearing). "Whitney."
Whitney—W. A. Whitney Mfg. Co., Rockford, Ill.
Rockford, Ill.
W. & W.—Imperial Machine Co., Minneapolis, Minn.

PUNCHES, HAND, SPRING AND REVOLVING.

Exell—The Hoggson & Pettis Mfg. Co., New Haven, Conn.
Hargrave—The Cincinnati Tool Co., Cincinnati, O.
Johnson, Wm., Firm of, Newark, N. J.
Sayre, L. A., Co., Newark N. J.
The Smith & Egge Mfg. Co., Bridgeport, Conn. "Dosch," "Semco."
Stearns, E. C. & Co., Syracuse, N. Y.

PUNCHES, HOLLOW.

Bullock Mfg. Co., Springfield, Mass.
Osborne, C. S., & Co., Newark, N. J.
Pexto—Peck, Stow & Wilcox Co., Southington, Conn.
Sayre, L. A., Company, Newark, N. J.
Syracuse Twist Drill Co., Syracuse, N. Y.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.

PUNCHES, HYDRAULIC.

Chambersburg Engineering Co., Chambersburg, Pa.
Dunning & Boschert Press Co., Syracuse, N. Y.
Dudgeon, Richard, New York, N. Y.
Elmes, Chas. F., Engineering Works, Chicago, Ill.
Henderer's Sons, A. L., Wilmington, Del.
Mackintosh, Hemphill & Co., Pittsburgh, Pa.
Niles-Bement-Pond Co., New York, N. Y.
Pels, Henry, & Co., New York, N. Y.
Sellers, Wm., & Co., Inc., Philadelphia, Pa.
Watson-Stillman Co., The, New York, N. Y.
Wood & Co., R. D., Philadelphia, Pa.

PUNCHES, MULTIPLE.

Badger State—Badger State Machine Works, Beloit, Wis.
Chambersburg Engineering Co., Chambersburg, Pa.
Rock River Machine Co., Janesville, Wis.
Thomas Spacing Machine Co., Pittsburgh, Pa. (vertical.)
Williams, White & Co., Moline, Ill.

PUNCHES, PIN.

Cornwell—The Cornwell Quality Tools Co., Cuyahoga Falls, Ohio.
Goodell-Pratt Co., Greenfield, Mass
Dasco—Damascus Steel Products Co., Rockford, Ill.
Hargrave—The Cincinnati Tool Co., Cincinnati, O.
Mephisto—W. A. Ives Mfg. Co., Wallingford, Conn.

PUNCHES, PNEUMATIC.

Baird—Baird Pneumatic Tool Co., Kansas City, Mo
Slocomb, F. F., & Co., Wilmington, Del.
Trane Co., The, La Crosse, Wis.

PUNCHES, PRICK.

Buck Bros., Millbury, Mass.
Cronk—The Cronk & Carrier Mfg. Co., Montour Falls, N. Y.
Dasco—Damascus Steel Products Co., Rockford, Ill.
Goodell-Pratt Co., Greenfield, Mass.
Hargrave—The Cincinnati Tool Co., Cincinnati, O.
Jennings, C. E., & Co., New York, N. Y.
Marcy Tool Works, Inc., Putnam, Conn. "Marcy."
Mephisto—W. A. Ives Mfg. Co., Wallingford, Conn. (plain and with countersink).
O.K.—Millers Falls Co., Millers Falls, Mass.

PUNCHES, RAILROAD TRACK.

Chambersburg Engineering Co., Chambersburg, Pa. (hydraulic.)
Duffy Manufacturing Co., Chicago, Ill.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Klein-Logan Co., The, Pittsburgh, Pa.
Schatz Mfg. Co., The, Poughkeepsie, N. Y.
Tuck Mfg. Co., Brockton, Mass.
Verona Tool Works, Pittsburgh, Pa.

PUNCHES, RIVETING.

Cornwell—The Cornwell Quality Tools Co., Cuyahoga Falls, Ohio.
Detroit Twist Drill Co., Detroit, Mich.
Mephisto—W. A. Ives Mfg. Co., Wallingford, Conn.

PUNCHES, SADDLERS'.

Goodell-Pratt Co., Greenfield, Mass.
Pexto—Peck, Stow & Wilcox Co., Southington, Conn.
Johnson, Wm., Firm of, Newark, N. J.
Smith & Egge Mfg. Co., Bridgeport, Conn.

PUNCHES, SAW BLADE.

Dikeman Mfg. Co., Norwalk, Conn.

PUNCHES, SCREW.

Badger State Machine Works, Beloit, Wis.
Bullock, C. K., Co., Philadelphia, Pa.
Detroit Twist Drill Co., Detroit, Mich.
Dudgeon, Richard, New York, N. Y.
Heartley Machine, Variety Iron & Tool Works, Toledo, O.
Henderer's Sons, A. L., Wilmington, Del.
Lovejoy Tool Works, Chicago, Ill.
Oswego Tool Co., Oswego, N. Y.
Rock River Machine Co., Janesville, Wis.
Schatz Mfg. Co., The, Poughkeepsie, N. Y.
Scully Steel & Iron Co., Chicago, Ill.
Watson-Stillman Co., The, New York, N. Y.

PUNCHES, SCREW, BALL BEARING.

Whitney Latest—Whitney Metal Tool Company, Rockford, Ill.

PUNCHES, SHEAR AND BAR CUTTER COMBINED.

The Bench—The Bench Machine Tool Co., Philadelphia, Pa.

PUNCHES AND SHEARS, HAND POWER, PORTABLE.

Whitney—W. A. Whitney Mfg. Co., Rockford, Ill.

PUNCHES AND SHEARS, COMBINED.

Armstrong-Blum Mfg. Co., Chicago, Ill. "Marvel."
Badger State Machine Works, Beloit, Wis.
Beloit—Hendley & Whittemore Co., Beloit, Wis.
Chambersburg Engineering Co., Chambersburg, Pa.
Clough, R. M., Meriden, Conn.
CoPunShear—Beatty Machine & Mfg. Co., Hammond, Ind. (power.)
Haskell, Wm. H., Mfg. Co., Pawtucket, R. I.
Heartley Machine, Variety Iron & Tool Works, Toledo, O.
Massillon Foundry & Machine Co., The, Massillon, O.
Perkins Machine Co., Warren, Mass.
Plymouth Foundry & Machine Co., Plymouth, Wis. (hand).
Royersford Foundry & Machine Co., Royersford, Pa.

PUNCHES, SOLID.

Anderson, W. H., Tool & Supply Co., Detroit, Mich.
Badger State Machine Works, Beloit, Wis. "Badger State."
Bemis & Call Hardware & Tool Co., Springfield, Mass.
Braunsdorf-Mueller Co., Elizabeth, N. J.
Buck Bros., Millbury, Mass.
Buffum Tool Co., Louisiana, Mo.
Carver, W. C., Tool Works, Spring Valley, N. J.
Cronk—The Cronk & Carrier Mfg. Co., Montour Falls, N. Y.
Danzer Metal Works, Hagerstown, Md. "Handy."
Eagle Claw—Mechanics Tool Co., Rockford, Ill.
Elmore—Chapin-Stephens Co., Pine Meadow, Conn.
Detroit Twist Drill Co., Detroit, Mich.
Goodell-Pratt Co., Greenfield, Mass.
Hargrave—The Cincinnati Tool Co., Cincinnati, O.
Heartley Machine, Variety Iron & Tool Works, Toledo, O.
Johnson, Wm., Firm of, Newark, N. J.
Marcy Tool Works, Inc., Putnam, Conn. "Marcy."
Marvel—Armstrong-Blum Mfg. Co., Chicago, Ill.
Mayhew Steel Products, Inc., New York, N. Y.
Mephisto—W. A. Ives Mfg. Co., Wallingford, Conn. (key drift, rivet, lining up).
National Tool Co., New York, N. Y.
New Process—Geo. F. Marchant Co., Chicago, Ill.
O.K.—Millers Falls Co., Millers Falls, Mass.
Paragon Tool Co., Seattle, Wash.
Pexto—Peck, Stow & Wilcox Co., Southington, Conn.
Rock River Machine Co., Janesville, Wis.
Sellers & Co., Inc., Wm., Philadelphia, Pa.
Smith, H. D., & Co., The, Plantsville, Conn. "Sharpen Ezy."
Silex—The Kilborn & Bishop Co., New Haven, Conn.
Southington Mfg. Co., The, Southington, Conn.
Tuck Mfg. Co., Brockton, Mass.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Vichek Tool Co., The, Cleveland, O.
Whitaker Mfg. Co., The, Chicago, Ill.

PUNCHES, TOOL MAKERS'.

Goodell-Pratt Co., Greenfield, Mass.

PURIFIERS, BOILER FEED WATER.

Hoppes—The Hoppes Mfg. Co., Springfield, O.
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.

PUSHERS, PIPE, FOR LAYING UNDERGROUND PIPING.

Clark, H. W., Co., Mattoon, Ill.
Duff Mfg. Co., Pittsburgh, Pa.
Easy Mfg. Co., David City, Neb.
Giant Mfg. Co., Council Bluffs, Ia.

PYROMETERS.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Bacharach Industrial Instrument Co., Pittsburgh, Pa.
Bristol's—Bristol Co., The, Waterbury, Conn.
Brown's Patent—Star Brass Mfg. Co., Boston, Mass
Cleveland—The Cleveland Instrument Co., Cleveland, Ohio.
F. & F.—Scientific Materials Co., Pittsburgh, Pa.
Foxboro Co., Inc., The, Foxboro, Mass.
Hoskins—Hoskins Mfg. Co., Detroit, Mich.
Le Chatelier—Chas. Englehard, Inc., New York, N. Y.
Le Chatelier—Wilson-Maeulen Co., New York, N. Y.
Leeds & Northrup Co., The, Philadelphia, Pa.
Monopivot (indicating)—Wilson Maeulen Co., New York, N. Y.
National Gauge Co., Brooklyn, N. Y.
Northrup—Pyrolectric Instrument Co., Trenton, N. J.
Price Mfg. Co., Cleveland, O. "Price."
Pyroscope—Shore Instrument & Mfg. Co., Jamaica, N. Y.
Scott—C. U. Scott & Son, Rock Island, Ill.
Stupakoff Laboratories, Pittsburgh, Pa.
Superheater Co., The, New York, N. Y.
Tag—C. J. Tagliabue Mfg. Co., Brooklyn, N. Y.
Tapalog (recording)—Wilson-Maeulen Co., New York.
Taylor-Cambridge—Taylor Instruments Companies, Rochester, N. Y.
Thwing Instrument Co., Philadelphia, Pa. "Twinko."
Uehling—Uehling Instrument Co., Paterson, N. J.
Zaubitz, August, New York, N. Y.

QUILLS OR HOLLOW SHAFTS (TRANSMISSION).

American Tool & Machine Co., Boston, Mass.
Brown, A. & F., Co., The, Elizabethport, N. J.
Dodge Mfg. Corp., Mishawaka, Ind.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jeffrey Mfg. Co., Columbus, O.
Medart Company, The, St. Louis, Mo.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Wood, T. B., Sons Company, Chambersburg, Pa.

RACKS, BAND SAW.

Edge & Co., Frank, Grand Rapids, Mich.

RACKS, BARREL, STORAGE.

Economy Engineering Co., Chicago, Ill.
Revolvator—Revolvator Co., Jersey City, N. J.
Republic Steel Package Co., Cleveland, O.

RACKS, BELTING, FOR SUPPLY HOUSES.

Graton & Knight Co., Worcester, Mass.

RACKS OR CARRIERS, SHEET PACKING.

Johnson, Henry, Co., Inc., The, Jersey City, N. J.

RACKS, HOSE.

Advance Hose Mfg. Co., Philadelphia, Pa.
Allen, W. D., Mfg. Co., Chicago, Ill. (Trade names—Bowes, Chicago, Dewey, Yale.)
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Cabinet—Bowers Rubber Works, San Francisco, Cal
Elkhart Brass Mfg. Co., Elkhart, Ind.
E-Z—Chas. Nuhring & Bro., Cincinnati, O.
Howard—H. J. M. Howard Mfg. Co., Washington, D. C.
Jiffy—The Jiffy Fire Hose Rack Co., New York, N. Y.
Larkin—Larkin Mfg. Co., Dayton, O.
Lightning—John Simmons Co., New York (pin).
New Britain Machine Co., The, New Britain, Conn.
Nuhring—Home Rubber Co., Trenton, N. J.
Peerless—H. J. M. Howard Mfg. Co., Washington, D. C.

Queen—Harker Mfg. Co., Cincinnati, O.
Safety Fire Extinguisher Co., The, New York, N. Y.
Seagrave—The Seagrave Co., Columbus, O.
Senate—Niedner's Sons Co., Chas., Malden, Mass.
Sherman—H. B. Sherman Mfg. Co., Battle Creek, Mich.
Stempel Fire Extinguisher Co., St. Louis, Mo.
Waterous Fire Engine Co., St. Paul, Minn.
Wirt & Knox Mfg. Co., Philadelphia, Pa. "Angle Iron," "Eclipse," "Hump," "Royal," "Style 'V'," "Wirt's National."

RACKS, FOR PIPE, SHAFTING, STOCK, ETC.

Brown Engineering Co., Reading, Pa.
Builders Iron Foundry, Providence, R. I.
Champion—Western Tool & Mfg. Co., Springfield, O.
Economy—Pekor Iron Works, Columbus, Ga.
Kent Machine Co., Kent, Ohio.
Lupton's David, Sons Co., Philadelphia, Pa.
Lyon Metallic Mfg. Co., Aurora, Ill.
Medart, Fred, Mfg. Co., St. Louis, Mo.
Meeco—Manufacturing Equipment & Eng. Co., Framingham, Mass.
New Britain Machine Co., New Britain, Conn.
Pollard Bros. Mfg. Co., Inc., Chicago, Ill.
Yohe, Wm. S., Supply Co., Canton, O.

RACKS, SOLDERING IRON, ELECTRIC.

Cutler-Hammer Mfg. Co., Milwaukee, Wis.

RACKS, STEEL, FOR SCREW MACHINES.

Brown Engineering Co., Reading, Pa.
Champion—Western Tool & Mfg. Co., Springfield, O.
Handiest Rack in the Shop—Yohe, Wm. S., Supply Co., Canton, O.

RACKS AND STANDS, TOOL.

Armstrong Bros. Tool Co., Chicago, Ill.
Berloy—Berger Mfg. Co., Canton, O.
Champion—Western Tool & Mfg. Co., Springfield, O.
Chicago Wire Chair Co., The, Chicago, Ill.
Cleveland Wire Spring Co., The, Cleveland, O.
Durand Steel Locker Co., Chicago, Ill.
Forg—Peter Forg, Somerville, Mass.
Lyon—Lyon Metallic Mfg. Co., Aurora, Ill.
Meeco—Manufacturing Equipment & Eng. Co., Framingham, Mass.
New Britain Machine Co., New Britain, Conn. "New Britain."
Ohio Mfg. Co., The, Painesville, O.
Ot-Steel—Angle Steel Stool Co., Plainwell, Mich.
Terrell's Equipment Co., Grand Rapids, Mich.
Revolvo—The Wellston Mfg. Co., Wellston, O.

RADIATOR CABINETS, ALL STEEL.

Tuttle & Bailey Mfg. Co., New York, N. Y. "Ferrocraft."

RADIATORS, DIRECT INDIRECT.

A. B. C.—American Blower Co., Detroit, Mich.
American Radiator Co., New York, N. Y.
Central Radiator Co., New York, N. Y.
Kewanee Boiler Co., Kewanee, Ill.
Logan—Logansport Radiator Equipment Co., Logansport, Ind.
Minnesota Radiator Co., Duluth, Minn.
Molby Boiler Co., Inc., New York, N. Y.
Monitor Bi-Loop Radiator Co., Lancaster, Pa.
National Radiator Corporation, Johnstown, Pa.
Pierce, Butler & Pierce Mfg. Corp., New York, N. Y.
Princess—H. B. Smith Co., Westfield, Mass.
Reading Heater & Supply Co., Reading, Pa.
Richmond Radiator Co., New York, N. Y.
Triton—United States Radiator Corp., Detroit, Mich.

RADIATORS, HOT BLAST.

American Radiator Co., New York, N. Y. (Trade names—Excelsior, Vento.)
Bayley Thermo-Unit—Bayley Mfg. Co., Milwaukee, Wis.

RADIATORS, INDIRECT.

A. B. C.—American Blower Co., Detroit, Mich.
American Radiator Co., New York, N. Y. (Trade names—Cardinal, Excelsior, Perfection Pin, Sterling, Vento.)
Improved Appliance Co., Brooklyn, N. Y.
National Radiator Corporation, Johnstown, Pa.
Smith, H. B., Co., The, Westfield, Mass. (Trade names—Aerial, Gold Pin, School Pin.)
United States Radiator Corp., Detroit, Mich. (Trade names—Champion, Florentine, Triton, Perfect Pin, Pin.)

RADIATORS, STEAM AND HOT WATER, ELECTRIC.

American Radiator Co., New York, N. Y., "Corto."
Automatic Electric Heater Co., Philadelphia, Pa. "Sepco."
Electro Steam—Scheeline Mfg. Co., San Francisco, Cal.
Landon Radiator Co., Inc., North Tonawanda, N. Y.
Majestic Electric Appliance Co., Inc., San Francisco, Cal.

RADIATORS, STEAM AND HOT WATER, GAS HEATED.

Automatic Electric Heater Co., Philadelphia, Pa. "Sepco."
American Radiator Co., New York, N. Y. "Corto."
Automatic Heating Corp., Boston, Mass.
Buffalo Gas Radiator Corp., North Tonawanda, N. Y.
Cabco—Cabco Iron Works, Inc., Gowanda, N. Y.
Clow, James B., & Sons, Chicago, Ill. (Trade names—Gasteam, Gaswater.)
Comet Radiator Co., Philadelphia, Pa.
Franklin—Trolley Supply Co. (Gas Appliance Dept.), Massillon, O.
Hawks—Hugo Mfg. Co., West Duluth, Minn.
Mead Gas Heater Co., Delawanna, N. J.
Ra-Do Radiator & Sales Corp., Philadelphia, Pa. "Rado."
Slattery Gas Radiator Co., The, Brooklyn, N. Y.
Wolff, A. H., Gas Radiator Co., New York, N. Y.

RADIATORS, STEAM, HIGH PRESSURE.

Nason Mfg. Co., New York, N. Y.
Superheater Co., New York, N. Y.
Walworth Company, Boston, Mass.

RADIATORS, STEAM AND HOT WATER.

American District Steam Co., North Tonawanda, N. Y. (Trade names—Coil, Economy, Niagara.)
American Radiator Co., New York, N. Y. (Trade names—Corto, Peerless.)
Andrews Heating Co., Minneapolis, Minn.
Central Radiator Co., Lansdale, Pa.
Chandler Heater Co., Cedar Rapids, Ia. (Trade names—Chandler, Iowa.)
Duluth—Marshall-Wells Co., Duluth, Minn.
Federal Radiator Co., Zanesville, O.
Kewanee Boiler Co., Kewanee, Ill. (Trade names—Corinth, Kewanee.)
Koran—Standard Heater Co., Williamsport, Pa.
Lincoln Radiator Corp., Utica, N. Y.
Logan—Logansport Radiator Equipment Co., Logansport, Ind.
Louraine—Pierce, Butler & Pierce Mfg. Co., New York, N. Y.
Mahoney, A. D., Troy, N. Y.
McLain—Weil-McLain Co., Michigan City, Ind.
Minnesota Radiator Co., Duluth, Minn.
Monitor Bi-Loop Radiator Co., Lancaster, Pa.
Mott, J. L., Iron Works, Trenton, N. J.
National Radiator Corporation, Johnstown, Pa.
New York Radiator Co., Utica, N. Y.
Norka—Standard Heater Co., Williamsport, Pa.
Page, Wm. H., Boiler Co., New York, N. Y.
Perfection—Mears-Kane-Ofeldt, Inc., Philadelphia, Pa.
Raritan Radiator Co., Raritan, N. J.
Regal—The Fuller-Warren Co., Milwaukee, Wis.
Richmond Radiator Co., New York, N. Y.
South Park Foundry & Machine Co., St. Paul, Minn. (Trade names—Bon Ton, Morning Glory, Rising Sun.)
Slow Buena—James B. Clow & Sons, Chicago, Ill.
Sovereign—The H. B. Smith Co., Westfield, Mass.
Spiral Boiler & Radiator Co., St. Paul, Minn.
Sterling—Walker Mfg. & Supply Co., Detroit, Mich.
Thatcher Co., The, New York, N. Y.
United States Radiator Corp., Detroit, Mich. (Trade names—Florentine, Grecian, Triton.)
Walworth Company, Boston, Mass.

RADIATORS, WALL.

Central Radiator Co., Lansdale, Pa.
Fowler & Wolfe Mfg. Co., Philadelphia, Pa.
Ideal Heating Co., Brooklyn, N. Y.
Kewanee Boiler Co., Kewanee, Ill.
Molby Boiler Co., Inc., New York, N. Y.
National Radiator Corporation, Johnstown, Pa.
Page, Wm. H., Boiler Co., New York, N. Y.
Peerless Wall—American Radiator Co., Buffalo, N. Y.
Pierce, Butler & Pierce Mfg. Corp., New York, N. Y. (Trade names—Pierce, Louraine.)
Smith, H. B., Co., The, Westfield, Mass. (Trade names—Princess, X Ray.)
Thatcher Furnace Co., New York, N. Y.
U. S. Radiator Corp., Detroit, Mich. (Trade names—Florentine, Triton.)
Weil-McLain Co., Michigan City, Ind.

RAILINGS AND FITTINGS, BRASS.

B. B.—Boston Brass Co., Waltham, Mass.
Buffalo—Buffalo Wire Works Co., Buffalo, N. Y.
Columbus Brass Co., Columbus, O.
Edwardsville Brass Co., Edwardsville, Ill.
Faultless—Ryan & Co., J. J., Chicago, Ill.
Fries & Co., Buffalo, N. Y.
Gilbert, A., & Sons Brass Foundry Co., St. Louis, Mo.
Hamilton Brass Works, John, Bridgeport, Conn.

Imperial Brass Mfg. Co., The, Chicago, Ill.
Newbury Mfg. Co., Monroe, N. Y.
Perkes Co., Chas., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Pittsburgh Valve & Fittings Co., Barberton, O.
Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.
Sherwood Mfg. Co., Buffalo, N. Y.
Walworth Company, Boston, Mass.

RAILINGS, IRON & STEEL.

Cesuco—Central Supply Co., Minneapolis, Minn.
Tyler, W. S., Co., The, Cleveland, O.
Walworth Company, Boston, Mass.

RAILS, BOX, FOR OVERHEAD TRANSMISSION.

Midwest Steel & Supply Co., Bradford, Pa.

RAILS AND ACCESSORIES, INDUSTRIAL.

Foster, L. B., Co., Pittsburgh, Pa.

RAILS, MOTOR (ELECTRIC).

Birkle Machine Works, Chicago, Ill.
Champion Blower & Forge Co., Lancaster, Pa.
General Electric Co., Schenectady, N. Y.

RAILS AND WARMERS, FOOT, RADIATOR.

Atlas Radiator Pedestal Co., Norwich, Conn.
Beaton & Cadwell Mfg. Co., New Britain, Conn.
Capitol—U. S. Radiator Corp., Detroit, Mich.
Comfort—W. C. Ovenden, West Boylston, Mass.
Union Radiator Co., Johnstown, Pa.

RAMMERS, JOLT, PNEUMATIC.

Brown & Sharpe Mfg. Co., Providence, R. I.
Canton Pneumatic Tool Co., Canton, O. "Canton."
Chicago Pneumatic Tool Co., New York, N. Y. "Boyer," "Keller," "Oldham."
Independent Pneumatic Tool Co., Chicago, Ill.
New Dayton—Dayton Pneumatic Tool Co., The, Dayton, O.

RAMMERS, SAND, BENCH.

Novelty Turning Co., Norway, Me.
Osborn—Osborn Mfg. Co., Cleveland, O.
Piqua Handle & Mfg. Co., Piqua, Ohio.

RAMS, HYDRAULIC.

Barnes Mfg. Co., The, Mansfield, O.
Crestline—The Crestline Mfg. Co., Crestline, O.
Douglas—W. & B. Douglas, Middletown, Conn.
Goulds—Goulds Pumps, Inc., Seneca Falls, N. Y.
Hydraram—The Deming Co., Salem, O.
Humphryes—The Humphryes Mfg. Co., Mansfield, O.
Myers, F. E., & Bro. Co., The, Ashland, O.
Niagara—Niagara Hydraulic Engine Co., Chester, Pa.
Rife—Rife Engine Co., New York, N. Y.
Rumsey—Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Trojan—Ross Valve Mfg. Co., Inc., Troy, N. Y.
Victory—The Deming Co., Salem, O.
Warlo—Ward-Love Pump Corp., Rockford, Ill.

RANGES, URINAL.

Avon—Wheeling Sanitary Mfg. Co., Wheeling, W. Va.
Crane Co., Chicago, Ill.
Ebco—D. A. Ebinger Sanitary Mfg. Co., Columbus, O.
Ford's Porcelain Works, Inc., Perth Amboy, N. J.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Monument Pottery Co., Trenton, N. J.
Mott, J. L., Iron Works, Trenton, N. J.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Tepeco—Trenton Potteries Co., Trenton, Pa.
Wolff Mfg. Corp., Chicago, Ill.

RANGES, WATER CLOSET.

Alberene Stone Co., New York, N. Y.
American Warming & Ventilating Co., Elmira, N. Y.
Crane Co., Chicago, Ill.
Ebinger, D. A., Mfg. Co., Columbus, O.
Em-Ess Persons—The Meyer-Sniffen Co., New York.
Federal-Huber Co., Chicago, Ill.
Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Mott, J. L., Iron Works, Trenton, N. J. (Trade names—Privus, Automatic, Solus.)
Standard Sanitary Mfg. Co., Pittsburgh, Pa. (Trade names—Brighten Open, Syphon, Eduction.)

RASPS.

Delta File Works, Philadelphia, Pa.
Graves File Co., The, Newark, N. J.
Heller Bros. Co., Newark, N. J.
Nicholson File Co., Providence, R. I.
Scandinavian Western Importing Co., Ltd., New York, N. Y.

RATCHETS AND RATCHET DRILLS.

(See also "Wrenches, Ratchet.")

Armstrong—Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn. "B. & S." "Packer," "Railroad."
Braunsdorf-Mueller Co., Elizabeth, N. J.
Carver Tool Works, Spring Valley, N. Y.
Cleveland Twist Drill Co., Cleveland, O.
Detroit Twist Drill Co., Detroit, Mich.
Giant—Keystone Mfg. Co., The, Buffalo, N. Y.
Goodell-Pratt Co., Greenfield, Mass.
Greene, Tweed & Co., New York, N. Y.
Hargrave—The Cincinnati Tool Co., Cincinnati, O.
King, A. R., Mfg. Co., Kingston, N. Y. "Packer."
Millers Falls Co., Millers Falls, Mass.
Monarch—The Keystone Mfg. Co., Buffalo, N. Y.
New Process Twist Drill Co., Taunton, Mass.
Ohlen—Ohlen-Bishop Co., Columbus, O.
Oswego Tool Co., The, Oswego, N. Y. "Oswego."
Packer-Lovejoy—Lovejoy Tool Works, Chicago, Ill.
Packer—The Ashcroft Mfg. Co., New York, N. Y.
Peck, Stow & Wilcox Co., The, Southington, Conn.
Pittsburgh Block & Mfg. Co., Pittsburgh, Pa.
Standard Tool Co., Cleveland, O.
Weston—The Keystone Mfg. Co., Buffalo, N. Y.

REAMERS, ADJUSTABLE BLADE.

Acme—Schellenbach-Hunt Tool Co., Cincinnati, O.
Arnold—H. H. Arnold Co., Inc., Rockland, Mass.
Brubaker—W. L. Brubaker & Bros. Co., New York, N. Y.
Cashman Tool Co., Waynesboro, Pa. "Cashman."
Cleveland Twist Drill Co., Cleveland, O. (Trade names—Paradox, Peerless, Quickset).
Clough, R. M., Meriden, Conn.
Critchley, Genuine—Chadwick & Trefethen, Portsmouth, N. H.
Critchley Pattern—Conant & Donelson Co., Conway, Mass.
Gisholt Machine Co., Madison, Wis.
J. M. C.—Scully Steel & Iron Co., Chicago, Ill.
Kelly—The Kelly Reamer Co., Cleveland, O.
Keystone Reamer & Tool Co., Millersburg, Pa. "Keystone."
McCrosky Tool Corp., Meadville, Pa. "Ideal," "McCrosky," "Super."
Maxpan—Reiff & Nestor Co., Lykens, Pa
Mergenthaler—The Hunt Mfg. Co., Baltimore, Md.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Moore & Moore, Reading, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Nu-Angle—Vedoe-Peterson Co., Norfolk Downs, Mass.
Pratt & Whitney Co., Hartford, Conn.
Reamrite—Greenfield Tap & Die Corp., Greenfield, Mass.
Rogers Works, The John M., Gloucester City, N. J
Shunk, H. A., Inc., New York, N. Y. "Red Band Critchley Type."
Simplex High Speed—Simplex Tool Supply Co., Boston, Mass.
Taft-Peirce Mfg. Co., The, Woonsocket, R. I.
Wetmore—Wetmore Reamer Co., Milwaukee, Wis.
Whitman Barnes-Detroit Corp., Detroit, Mich.
Windau Iron Co., Cleveland, O.

REAMERS, BIBB AND VALVE SEAT.

Ajax—Ajax Mfg. Co., Pittsburgh, Pa.
Johnson, Wm., Firm of, Newark, N. J.
Master—Masters & Son, Ithaca, N. Y.
Skinner—M. B. Skinner Co., Chicago, Ill.
Sterling—Adam A. Long Machine Works, Rochester, N. Y.
Yonts, C. H., Co., Meadville, Pa. "Lord," "Penna," "Universal."

REAMERS, BIT BRACE AND HAND.

Alvo—Alvord Reamer & Tool Co., Millersburg, Pa.
Bay State—Bay State Tap & Die Co., Mansfield, Mass.
Brubaker—W. L. Brubaker & Bros., New York, N. Y.
Buckeye Twist Drill & Tool Co., The, Alliance, O.
Butterfield & Co., Div. Union Twist Drill Co., Derby Line, Vt.
Cleveland Twist Drill Co., Cleveland, O.
Clough, R. M., Tolland, Conn.
G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.
Hercules—Greenfield Tap & Die Corp., Greenfield, Mass.
Kelly Reamer Co., Cleveland, O.
Keystone Reamer & Tool Co., Millersburg, Pa.
McCrosky Tool Corp., Meadville, Pa.
Mayhew Steel Products, Inc., New York, N. Y.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Moore & Moore, Reading Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Polk & Son, A. J., Millersburg, Pa.
Reamrite—Greenfield Tap & Die Corp., Greenfield, Mass.

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Whitman Barnes-Detroit Corp., Detroit, Mich.

REAMERS, BRIDGE.

Alvo—Alvord Reamer & Tool Co., Millersburg, Pa.
Butterfield & Co., Div. Union Twist Drill Co., Derby Line, Vt.
Celfor—Clark Equipment Co., Buchanan, Mich.
Chapin-Skelton Corp., Syracuse, N. Y.
Cleveland Twist Drill Co., Cleveland, O.
Greenfield Tap & Die Corp., Greenfield, Mass. "G. T. D."
Hercules—The Whitman & Barnes Mfg. Co., Akron, Ohio.
Illinois—Illinois Tool Works, Chicago, Ill.
Latrobe—Latrobe Tool Co., Latrobe, Pa.
Moore & Moore, Inc., Reading, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Polk, A. J., & Son, Millersburg, Pa.
Reiff & Nestor, Lykens, Pa.
Whitman Barnes-Detroit Corp., Detroit, Mich.

REAMERS, BURRING.

Butterfield & Co., Div. Union Twist Drill Co., Derby Line, Vt.
G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.
Threadwell Tool Co., The, Greenfield, Mass.

REAMERS, CAR BUILDERS'.

Hercules—The Whitman & Barnes Mfg. Co., Akron, Ohio.
Latrobe—Latrobe Tool Co., Latrobe, Pa.

REAMERS, CENTER.

Bay State—Bay State Tap & Die Co., Mansfield, Mass.
Card, S. W., Mfg. Co., Div. of Union Twist Drill Co., Mansfield, Mass.
Cleveland Twist Drill Co., Cleveland, O.
G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.
Moore & Moore, Inc., Reading, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Shield Brand—Standard Tool Co., Cleveland, O.
Whitman Barnes-Detroit Corp., Detroit, Mich.

REAMERS, CHUCKING.

Alvo—Alvord Reamer & Tool Co., Millersburg, Pa.
Brubaker, W. L., & Bros. Co., New York, N. Y.
Buckeye Twist Drill & Tool Co., The, Alliance, O.
Butterfield & Co., Div. Union Twist Drill Co., Derby Line, Vt.
Celfor—Clark Equipment Co., Buchanan, Mich.
Gale-Sawyer Co., The, Boston, Mass.
The Gammons-Holman Co., Manchester, Conn. "Gammons."
Greenfield Tap & Die Corp., Greenfield, Mass. "Green River."
Hercules—The Whitman & Barnes Mfg. Co., Akron, Ohio.
Hjorth—Hjorth Lathe & Tool Co., Boston, Mass.
Illinois Tool Works, Chicago, Ill.
Mergenthaler—The Hunt Mfg. Co., Baltimore, Md.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Moore & Moore, Inc., Reading, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Peerless—The Cleveland Twist Drill Co., Cleveland, O.
Polk & Son, A. J., Millersburg, Pa.
Pratt & Whitney Co., Hartford, Conn.
Reamrite—Greenfield Tap & Die Corp., Greenfield, Mass.
Reiff & Nestor, Lykens, Pa.
Standard Tool Co., Cleveland, O.
Stanworth Tool Mfg. Co., Inc., Indianapolis, Ind.
Threadwell Tool Co., The, Greenfield, Mass.
Union Twist Drill Co., Athol, Mass.
Whitman Barnes-Detroit Corp., Detroit, Mich.

REAMERS, CYLINDER.

Chadwick & Trefethen, Portsmouth, N. H. "Critchley," "Genuine."
Foster-Johnson Reamer Co., Elkhart, Ind. "Foster-Johnson."
Keystone Reamer & Tool Co., Millersburg, Pa. "Keystone."
McCrosky Tool Corp., Meadville, Pa.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Wetmore—Wetmore Reamer Co., Milwaukee, Wis.

REAMERS, ELECTRIC.

Hisey-Wolf Machine Co., Cincinnati, Ohio.
Ideal—The Neil & Smith Electric Tool Co., Cincinnati, O.
Peerless—Cincinnati Electric Tool Co., Cincinnati, O.
U. S. Electrical Tool Co., Cincinnati, O.
Van Dorn Electric Tool Co., Cleveland, Ohio. "Van Dorn."
Wodack—Wodack Electric Tool Corp., Chicago, Ill.

REAMERS, EXPANDING.

Critchley Genuine—Chadwick & Trefethen, Portsmouth, N. H.
Critchley Red Band—H. A. Shunk, Inc., New York, N. Y.
Foster-Johnson Reamer Co., Elkhart, Ind. "Foster-Johnson."
Morse Twist Drill & Tool Co., New Bedford, Mass.

REAMERS, EXPANSION.

Alvo—Alvord Reamer & Tool Co., Millersburg, Pa.
Bilton Machine Tool Co., The, Bridgeport, Conn.
Brubaker—W. L. Brubaker & Bros. Co., New York, N. Y.
Butterfield & Co., Div. Union Twist Drill Co., Derby Line, Vt.
Critchley, Genuine—Chadwick & Trefethen, Portsmouth, N. H.
Critchley Red Band—H. A. Shunk, Inc., New York, N. Y.
Davis Boring Tool Co., Inc., St. Louis, Mo. "Davis."
Hanlon & Wilson, Wilkinsburg, Pa.
Hercules—The Whitman & Barnes Mfg. Co., Akron, Ohio.
J. M. C.—Scully Steel & Iron Co., Chicago, Ill.
Keystone Reamer & Tool Co., Millersburg, Pa. "Keystone."
Mayhew Steel Products, Inc., New York, N. Y.
Mergenthaler—The Hunt Mfg. Co., Baltimore, Md.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Mirr-O-Ream—Samuel Hocking & Son, Lancaster, Pa.
Moore & Moore, Inc., Reading, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Nicholson, W. H., & Co., Wilkesbarre, Pa.
Parob—The Gammons-Holman Co., Manchester, Conn.
Paradox—The Cleveland Twist Drill Co., Cleveland, O.
Polk, A. J. & Son, Millersburg, Pa.

Pratt & Whitney Co., Hartford, Conn.
Schellenbach-Hunt Co., Cincinnati, O.
Standard Tool Co., Cleveland, O. "Shield Brand."
Smooth-Kut—Millersburg Reamer & Tool Co., Millersburg, Pa.
Watervliet—Watervliet Tool Co., Inc., Albany, N. Y.
Wetmore—Wetmore Reamer Co., Milwaukee, Wis.
Whitman Barnes-Detroit Corp., Detroit, Mich.

REAMERS, FLEXIBLE SHAFT.

Pittsburgh—Gem Mfg. Co., Pittsburgh, Pa.

REAMERS, HEAVY DUTY.

Bull Dog—Wetmore Reamer Co., Milwaukee, Wis.
Hisey—Hisey-Wolf Machine Co., Cincinnati, O.

REAMERS, HIGH SPEED.

Moore & Moore, Inc., Reading, Pa.
Peerless—Cleveland Twist Drill Co., Cleveland, O.
Union Twist Drill Co., Athol, Mass.
Whitman Barnes-Detroit Corp., Detroit, Mich.

REAMERS, LOCOMOTIVE.

Alvo—Alvord Reamer & Tool Co., Millersburg, Pa.
Brubaker—W. L. Brubaker & Bros. Co., New York, N. Y.
Celfor—Clark Equipment Co., Buchanan, Mich.
Cleveland Twist Drill Co., Cleveland, O.
Greenfield Tap & Die Corp., Greenfield, Mass.
Keystone Reamer & Tool Co., Millersburg, Pa.
Illinois—Illinois Tool Co., Chicago, Ill.
Latrobe Tool Co., Latrobe, Pa. "Latrobe."
Moore & Moore, Inc., Reading, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Reiff & Nestor, Lykens, Pa.
Whitman Barnes-Detroit Corp., Detroit, Mich. "Hercules."

REAMERS, PIPE.

Alvo—Alvord Reamer & Tool Co., Millersburg, Pa.
Bay State Tap & Die Co., Mansfield, Mass. "Bay State."
Browns—The Ashcroft Mfg. Co., New York, N. Y
Billings & Spencer Co., The, Hartford, Conn. "B. & S."
Brubaker, W. L., & Bros. Co., New York, N. Y.
Butterfield & Co., Div. Union Twist Drill Co., Derby Line, Vt.
Card, S. W., Mfg. Co., Div. of Union Twist Drill Co., Mansfield, Mass.
Chyco—The C. H. Yonts Co., Meadville, Pa.
Crown Die & Tool Co., Chicago.
Elterich, Chas., Co., New York, N. Y.
G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands—Hollands Mfg. Co., Erie, Pa.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Moore & Moore, Inc., Reading, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass
Mueller Co., Decatur, Ill.
National Twist Drill & Tool Co., Detroit, Mich.
Polk, A. J. & Son, Millersburg, Pa.
Pratt & Whitney Co., Hartford, Conn.
Reiff & Nestor, Lykens, Pa.
Shield Brand—Standard Tool Co., Cleveland, O.
Smart—Greenfield Tap & Die Corp., Greenfield, Mass.
Standard—Wm. Cromley, Lewisburg, Pa.
Threadwell Tool Co., The, Greenfield, Mass.
W. C. Carver Tool Works, Spring Valley, N. Y
Walworth Hell's—Walworth Company, Boston, Mass

REAMERS, PISTON PIN.

Acme—The Schellenbach-Hunt Tool Co., Cincinnati, O.
B-N—Burgess-Norton Co., Geneva, Ill.
Critchley Genuine—Chadwick & Trefethen, Portsmouth, N. H.
J. M. C.—Scully Steel & Iron Co., Chicago, Ill.
Millersburg Reamer & Tool Co., Millersburg, Pa.

REAMERS, PNEUMATIC.

Amco—Amco Sales Corp., Chicago, Ill.
Baird Pneumatic Tool Co., Topeka, Kan.
Chicago Pneumatic Tool Co., New York, N. Y. "Little Giant."
Ingersoll-Rand Co., New York, N. Y.
Niles-Bement-Pond Co., New York, N. Y.
Thor—Independent Pneumatic Tool Co., Chicago, Ill

REAMERS, SHELL AND CORE.

Alvo—Alvord Reamer & Tool Co., Millersburg, Pa.
Brubaker—W. L. Brubaker & Bros. Co., New York, N. Y.
Buckeye Twist Drill & Tool Co., Alliance, O.
Butterfield & Co., Div. Union Twist Drill Co., Derby Line, Vt.
Cleveland Twist Drill Co., Cleveland, O.
Cogsdill Mfg. Co., The, Detroit, Mich.
Green River—Greenfield Tap & Die Corp., Greenfield, Mass.
Hercules—The Whitman & Barnes Mfg. Co., Akron, Ohio.
Mergenthaler—The Hunt Mfg. Co., Baltimore, Md.
Moore & Moore, Inc., Reading, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass
Polk & Son, A. J., Millersburg, Pa.
Reiff & Nestor, Lykens, Pa.
Standard Tool Co., The, Cleveland, O.
Super—McCrosky Tool Corp., Meadville, Pa.
Wetmore—Wetmore Reamer Co., Milwaukee, Wis.
Whitman Barnes-Detroit Corp., Detroit, Mich.

REAMERS, SPIRAL FLUTED, ROSE CHUCKING, ROSE SHELL.

Butterfield & Co., Div. Union Twist Drill Co., Derby Line, Vt.
Cleveland Twist Drill Co., The, Cleveland, O.
G. T. D.—Greenfield Tap & Die Corp., Greenfield Mass.
Latrobe—Latrobe Tool Co., Latrobe, Pa.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Moore & Moore, Inc., Reading, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Union Twist Drill Co., Athol, Mass.
Whitman Barnes-Detroit Corp., Detroit, Mich.

REAMERS, SQUARE.

Braunsdorf-Mueller Co., Elizabeth, N. J.
Buck Bros., Millbury, Mass.
Crescent Co., Inc., The, Meriden, Conn.
Red Devil—Smith & Hemenway Co., Irvington, N. J.

REAMERS, TAPER AND TAPER PIN.

Alvo—Alvord Reamer & Tool Co., Millersburg, Pa.
American Saw & Tool Works, Chicago, Ill.
Bay State—The Bay State Tap & Die Co., Mansfield, Mass.
Brubaker—W. L. Brubaker & Bros. Co., New York, N. Y.
Buckeye Twist Drill & Tool Co., The, Alliance, O.
Butterfield & Co., Div. Union Twist Drill Co., Derby Line, Vt.
Chapin-Skelton Tool Corp., Syracuse, N. Y.
Chyco—The C. H. Yonts Co., Meadville, Pa.
Celfor—Clark Equipment Co., Buchanan, Mich.
Cleveland Twist Drill Co., Cleveland, O.
Gammons—Gammons Holman Co., Manchester, Conn.
G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.
Hercules—Greenfield Tap & Die Corp., Greenfield, Mass.
Hercules—The Whitman & Barnes Mfg. Co., Akron, Ohio.
Hollands—Hollands Mfg. Co., Erie, Pa.
Illinois Tool Works, Chicago, Ill.
Keystone—Keystone Reamer & Tool Co., Millersburg, Pa.
Little Giant—Greenfield Tap & Die Corp., Greenfield, Mass.
Madison Mfg. Co., Muskegon, Mich.
Mergenthaler—The Hunt Mfg. Co., Baltimore, Md.
Millersburg Reamer & Tool Co., Millersburg, Pa.
Moore & Moore, Inc., Reading, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass
Mueller Co., Decatur, Ill.
Polk & Son, A. J., Millersburg, Pa.
Pratt & Whitney Co., Hartford, Conn.
Reiff & Nestor Co., Lykens, Pa.
Rochester Machine Screw Co., Rochester, N. Y.
Scully Jones & Co., Chicago, Ill.
Shield Brand—The Standard Tool Co., Cleveland, O.
Spirex—Cleveland Twist Drill Co., Cleveland, O.
Threadwell Tool Co., The, Greenfield, Mass.
Union Twist Drill Co., Athol, Mass.
Western Automatic Screw Co., Elyria, O.
Wetmore Reamer Co., Milwaukee, Wis.
Whitaker—Whitaker Mfg. Co., The, Chicago, Ill.
Whitman Barnes-Detroit Corp., Detroit, Mich.

REAMERS, VALVE RESEATING.

Chyco—The C. H. Yonts Co., Meadville, Pa.
Kelly Reamer Co., Cleveland, O.
Powell, Wm., Co., The, Cincinnati, O.
Skinner, M. B., Co., Chicago, Ill.
Sterling—Adam A. Long, Rochester, N. Y.
Universal—The C. H. Yonts Co., Meadville, Pa.

REAMERS, WOODWORKING.

Dasco—Damascus Steel Products Co., Rockford, Ill.
Hill-Curtis Co., Kalamazoo, Mich.
Swan, James, Co., The, Seymour, Conn.

RECEIVERS, AIR.

Aurora—Steel Tank & Products Corp., Chicago, Ill.
Biggs Boiler Works Co., The, East Akron, O.
Bury Compressor Co., Erie, Pa.
Casey-Hedges Co., The, Chattanooga, Tenn.
Chicago Pneumatic Tool Co., New York, N. Y. "C. P."

Columbian Steel Tank Co., Kansas City, Mo.
Fairhurst—American Air Compressor Works, Brooklyn, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Joliet—Amco Sales Corp., Chicago, Ill.
Koven & Bro., L. O., Jersey City, N. J.
Lake Erie Boiler Works, Buffalo, N. Y.
Leader Iron Works, Decatur, Ill.
Munroe & Sons Mfg. Corp., R., Pittsburgh, Pa.
Novelty Steam Boiler Works, The, Baltimore, Md. "Arrow."
Petroleum Iron Works Co., Sharon, Pa.
Phoenix Iron Works Co., Meadville, Pa.
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.
Thompson Iron Works, Philadelphia, Pa.
Trane Co., The, LaCrosse, Wis.
Walsh & Weider Boiler Co., The, Chattanooga, Tenn.
Worthington Pump & Machinery Corp., New York, N. Y.

RECEIVERS, AMMONIA

Keating, E. F., Pipe Bending & Supply Co., Hartford, Conn.

RECEIVERS AND PURIFIERS, STEAM.

American District Steam Co., North Tonawanda, N. Y.
Baragwanath, Wm., & Son, Chicago, Ill.
Bros—Wm. Bros Boiler & Mfg. Co., Minneapolis, Minn.
Curtis—Julian d'Este Co., Boston, Mass.
Klipfel Mfg. Co., Chicago, Ill.
Rado Co., The, Milwaukee, Wis.
Swartwout—The Swartwout Co., Cleveland, O.
Whitlock Coil Pipe Co., The, Hartford, Conn.
Wright-Austin—Wright-Austin Co., Detroit, Mich.

RECEPTACLES, REFUSE.

(See "Cans and Receptacles, Refuse.")

RECEPTORS, SHOWER BATH.

Boekel, Wm., & Co., Philadelphia, Pa.
Ford's Porcelain Works, Perth Amboy, N. J.
Furlong, Thos. N., San Francisco, Cal.
General Ceramics Co., New York, N. Y.
Gothic—United States Sanitary Mfg. Co., Pittsburgh, Pa.
Iron City Sanitary Mfg. Co., Pittsburgh, Pa.
Kohler Co., Kohler, Wis.
Mott, J. L., Iron Works, The, Trenton, N. J.
Panelton—Monument Pottery Co., The, Trenton, N. J.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Trenton Potteries Co., Trenton, N. J. (Trade names—Ideal, Tepeco.)
Wheeling Sanitary Mfg. Co., Wheeling, W. Va.

RECORDERS AND INDICATORS, COMBUSTION AND FLUE GAS, OR C-O-2.

Defender Automatic Regulator Co., St. Louis, Mo.
Eddy—The Hays Corporation, Michigan City, Ind.
Foxboro-Heath—Foxboro Co., Inc., The, Foxboro, Mass.
Republic Flow Meters Co., Chicago, Ill. "Republic."
Sargent Steam Meter Co., The, Chicago, Ill. "Sargent."
Tagliabue, C. J. Mfg. Co., Brooklyn, N. Y. "Tag-Mono."
Thwing Instrument Co., Philadelphia, Pa.
Uehling Instrument Co., Paterson, N. J. (Trade names—Apex, Uehling.)

RECORDERS, DRAFT.

Bacharach Industrial Instrument Co., Paterson, N. J
Hays Corporation, The, Michigan City, Ind.
Uehling—Uehling Instrument Co., Paterson, N. J.

RECORDERS, ELECTRICAL.

Bristol's—Bristol Co., Waterbury, Co..

RECORDERS AND INDICATORS, SPECIFIC GRAVITY.

Davis—Davis Instrument Mfg. Co., Inc., Baltimore Md.
Freas, Francis L., Glass Works, Inc., Conshohocken, Pa.
Gensco—General Scientific Instrument Co., North Philadelphia, Pa.
Griebel Instrument Co., Carbondale, Pa.
Hays Corporation, The, Michigan City, Ind.
National Gauge Co., Brooklyn, N. Y.
Precision Thermometer & Instrument Co., Philadelphia, Pa.
Republic—Republic Flow Meters Co., Chicago, Ill.
Scientific Instrument Co., Detroit, Mich.
Tag—C. J. Tagliabue Mfg. Co., Brooklyn, N. Y.
Tagliabue, G., Estate of, New York, N. Y.
Testo-Meter—A. E. Moeller, Brooklyn, N. Y.
Tycos—Taylor Instrument Companies, Rochester, N. Y.
Weiss, A. A., & Son, Brooklyn, N. Y.

Tuttle & Bailey Mfg. Co.
441 Lexington Ave., New York
Manufacturers of all kinds of
Registers and Grilles
for
Heating and Ventilating
and
RADIATOR CABINETS
(All Steel)
Makers of Registers and Grilles for 80 years

RECORDERS, LIQUID LEVEL.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Bristol's—Bristol Co., The, Waterbury, Conn.
Gurley—W. & L. E. Gurley, Troy, N. Y.

RECORDERS, MOTION.

Bristol's—Bristol Co., The, Waterbury, Conn.

RECORDERS, SPEED.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.

RECORDERS, TEMPERATURE.

(See "Thermometers, Recording.")

RECORDERS, WATER FLOW.

Bristol's—Bristol Co., The, Waterbury, Conn.
Yarnall-Waring Co., Philadelphia, Pa. "Yarway." "Lea V-Notch."

REDUCERS, CLOSET SPUD.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
American Sanitary Mfg. Co., Abingdon, Ill.
Frank Bros. Mfg. Co., New York, N. Y.
Frost Mfg. Co., The, Kenosha, Wis.
Hansen Brass Mfg. Co., Grand Rapids, Mich.
Hilton Brass Foundry, Hilton, N. J.
Morency-Van Buren Mfg. Co., Sturgis, Mich.
Peerless Selling Co., Evansville, Ind.

REDUCERS AND MULTIPLIERS, SPEED.

(See "Gears, Speed Reduction Units.")

REELS, BELTING.

Standard Leather Machinery Co., Chicago, Ill.

REELS, ABRASIVE TAPE.

Wausau Abrasives Co., Wausau, Wis. "Wausite."

REELS, ELECTRIC, EXTENSION.

Autex—The Cincinnati Specialty Mfg. Co., Inc. Cincinnati, O.
Gleason, J. L., & Co., Boston, Mass.
Reelite—Appleton Electric Co., Chicago, Ill.

REELS, HOSE.

Advance Hose Mfg. Co., Philadelphia, Pa.
Buckeye—Hamilton Rubber Mfg. Co., Trenton, N. J
Buckley, J. W., Rubber Co., New York, N. Y.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Gaylord—The Gaylord Mfg. Co., New York, N. Y
McKinnon Dash Co., Buffalo, N. Y. "McKinnon."
Northern Fire Apparatus Co., Minneapolis, Minn.
Powhatan Brass & Iron Works, Ranson, W. Va.
Queen—Harker Mfg. Co., Cincinnati, O.
Rex—Charles Nuhring & Bro., Cincinnati, O.
Rowe, A. C., & Son, Inc., New York, N. Y.
Ryerson—W. D. Allen Mfg. Co., Chicago, Ill.
Seagrave Co., South Columbus, Ohio.
Seattle Brass Co., Seattle, Wash.
Specialty Mfg. Co., The, St. Paul, Minn.
Waterous Fire Engine Works, St. Paul, Minn.
Wirt & Knox Mfg. Co., Philadelphia, Pa. "All Metal." "Wirt's Swinging."
Woodhouse Mfg. Co., The, New York, N. Y.

REELS, PAY-OUT.

Dicke Tool Co., Downers Grove, Ill.
Hayward Co., The, New York, N. Y., "Hayward."

REELS, TAPE, OIL GAGING.

Starrett, L. S., Co., The, Athol, Mass.

ACCURATE RECORDS
of All Plant Operating Factors

Daily continuous records of important factors in the operation of central stations, industrial plants and manufacturing processes are essential to proper supervision and maintained economy. Be sure that these records are accurately drawn by using Bristol's Recording Instruments for:—Pressure and Vacuum—Temperature—Humidity—Liquid Level—Boiler Water Level—Electrical Units—Operation—Motion—Speed, etc.

Recording Pressure Gauge

Bristol's Recording Pressure and Vacuum Gauges

Use them on steam, water, air, gas, oil, ammonia, acid and alkaline lines. Simple, rugged, and always dependable. Will draw pressure and vacuum records for all service conditions. Standard, round, square, strip-chart and portable models. Also moisture and dust proof mountings can be furnished.

Pyrometer Controller No. 479

Bristol's Recording Thermometers

Adapted to record temperatures ranging from 60 deg. below zero to 1000 deg. F. in all industries and manufacturing processes. Indispensable in the modern boiler, pump and condenser room. Standard, inverted and round models.

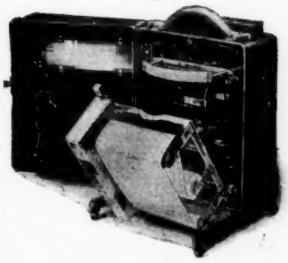
Bristol Recording Pyrometers

Especially adapted to measure high temperatures in boilers, furnace passes, smoke flue, cupolas, blast furnaces, etc. Equipped with internal cold end compensator—original with Bristol's—which eliminates necessity for correction factor. Special couple fixtures provided for Diesel Engine.

Recording Thermometer

Bristol's Pyrometer Controller

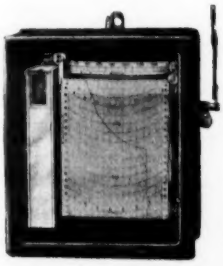
This instrument when used in connection with Bristol's motor operated valves or with proper switches, controls temperatures up to 3000 deg. F. on all kinds of furnaces and ovens for annealing, carbonizing, japanning, drying, baking, burning, etc. It incorporates many exclusive features including the long 7 inch scale, and safety adjusting mechanism and is extremely accurate in operation.



Recording Wattmeter Strip Chart Portable Model

Bristol's Electrical Recording Instruments

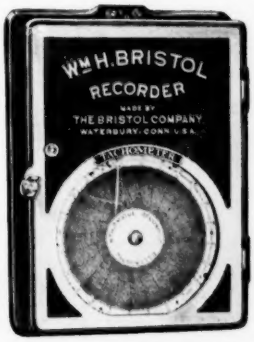
For checking voltage conditions, in power houses, or transmission lines and on consumers' premises; for investigative work, for checking power consumption and load conditions; to prevent bucking on station tie-ins. These are some of the many uses for Bristol's Recording Voltmeters, Mill-Voltmeters, Ammeters, Shunt-Ammeters, Wattmeters and Frequency Meters. Available for all purposes in wall, switchboard, and portable models.



Recording Pyrometer

Bristol's Electric Tachometers

All turbine, engine, Diesel engine, generator and motor speeds—in fact, the speed of any revolving piece of machinery—can be accurately recorded by Bristol's Recording Tachometers. A simple check on the regulation maintained. Furnished in strip chart models and models using round smoked charts to suit requirements.



Recording Tachometer

The Bristol Company *Waterbury, Connecticut*

FOR 36 YEARS — Ask Any Technical Engineer — MAKERS OF

BRISTOL'S RECORDING INSTRUMENTS

Branch Offices:

BOSTON, PITTSBURGH, DENVER, NEW YORK, DETROIT, PHILADELPHIA, CHICAGO, BIRMINGHAM, ST. LOUIS, SAN FRANCISCO

REELS, WIRE, TILTING.

Nilson—The A. H. Nilson Machine Co., Bridgeport, Conn.

REFACERS, BAND SAW WHEEL.

Armstrong Mfg. Co., Portland, Ore.

REFLECTORS OR ILLUMINATORS, GAGE GLASS

Keckley, O. C., Company, Chicago, Ill. "S. S. P."

REGISTERS FOR HEATING AND VENTILATING.

Tuttle & Bailey Mfg. Co., New York, N. Y. "Ferrocraft." (See Advertisement, Page 278.)

REGULATORS, DAMPER, CLOCK.

Kees, F. D., Mfg. Co., Beatrice, Neb. "Kees."
Tillery's Little Janitor Clock Co., "Little Janitor."

REGULATORS, DAMPER, HYDRAULIC.

D'Este—D'Este Co., Julian, Boston, Mass.
Foster—Foster Engineering Co., Newark, N. J.
McAlear Mfg. Co., The, Chicago.
Mason Regulator Co., Boston, Mass.

REGULATORS, DAMPER, FOR POWER BOILERS.

A-Jacks—National Regulator Co., Chicago, Ill.
Atlas Valve Co., Newark, N. J.
Boylston Steam Specialty Co., Chicago, Ill. "Boylston."
Burrows, F. A., Mfg. Co., York, Pa.
Clark—Foskett & Bishop Co., New Haven, Conn.
Dean—Payne Dean Limited, Stamford, Conn.
Defender Automatic Regulator Co., St. Louis, Mo.
Duplex—Kitts Steam Specialties Co., Oswego, N. Y.
Eastwood Wire Mfg. Co., Belleville, N. J.
Hennebohle Co., Chicago, Ill.
Hutchison Vapor Heating Corp., Washington, D. C.
Improved—Julian d'Este Co., Boston, Mass.
Kitts—Kitts Mfg. Co., Oswego, N. Y.
Lewis Steam Specialty & Valve Co., Philadelphia, Pa.
Locke Regulator Co., Salem, Mass.
Lonergan, J. E., Co., Philadelphia, Pa. "Kellam."
Mason Regulator Co., Boston, Mass.
McAlear Mfg. Co., Chicago, Ill.
McDonough—McDonough Coal Saving Corp., Detroit, Mich.
Melaphram—National Regulator Co., Chicago, Ill.
R. T. Co.'s—Richard Thompson & Co., New York, N. Y.
Ruggles-Klingemann Co., Salem, Mass. "R-K."
Smillie, C. M. & Co., Detroit, Mich. "Kellam Bischoff Improved."
Smoot Engineering Corp'n, New York, N. Y.
Spence Engineering Co., Inc., New York, N. Y.
Spencer—James L. Robertson & Sons, New York, N. Y.
Spencer Regulator Co., Salem, Mass.
Standard P. & S.—Power Turbo Blower Co., New York, N. Y.
Sylphon Regitherm—Fulton Company, The, Knoxville, Tenn.
Trane Co., The, La Crosse, Wis.
Utility—Standard Steam Specialty Co., New York.
Watts Regulator Co., Lawrence, Mass.
Wing, L. J., Mfg. Co., New York, N. Y. "Wydawake," "Wing Type E."

REGULATORS, DAMPER, STEAM & HOT WATER HEATING BOILER.

Adsco—American District Steam Co., North Tonawanda, N. Y. (and relief valve combined).
American Radiator Co., New York, N. Y.
American Thermostat Co., Newark, N. J.
Andrews Heating Co., Minneapolis, Minn.
Atlas Valve Co., Newark, N. J.
Atwood & Morrill, Salem, Mass. (Trade names—20th Century Locke, 20th Century Spencer.)
Auclo Co., The, Newark, N. J.
Bates, Edward P., Syracuse, N. Y.
Beers Instrument Co., Rochester, N. Y.
Berry Engineering Co., Chester, Pa.
Burrows, F. A., Mfg. Co., York, Pa.
Bushnell, John S., Co., Brooklyn, N. Y.
B-V—Thatcher Furnace Co., New York, N. Y.
Curtis Improved—Julian d'Este Co., Boston, Mass.
Davis, G. M., Regulator Co., Chicago, Ill.
Deegan, E. J., Co., New York, N. Y.
Diamond Power Specialty Co., Detroit, Mich.
Doody Vapor Heating Co., Inc., The, Boston, Mass.
Dunham, C. A., Co., Inc., Chicago, Ill.
Economy—L. G. Doolittle, Binghamton, N. Y.
Elliott Co., Jeannette, Pa.
Federal Gauge Co., Chicago, Ill.
Fleur de lis—Boston Steam Specialty Co., Boston, Mass.
Foskett & Bishop Co., The, New Haven, Conn.
Foster—Foster Engineering Co., Newark, N. J.
Gorton—Gorton & Lidgerwood Co., New York, N. Y.
Hagan Corp., Pittsburgh, Pa.
Hennebohle Co., Chicago, Ill.
Hoffman Specialty Co., Waterbury, Conn.
Honeywell Heating Specialties Co., Wabash, Ind.
Hornung, J. C., Chicago, Ill.
Hutchison Regulator Co., Washington, D. C.
Hyde Regulator Mfg. Co., Westfield, N. Y.
Illinois Engineering Co., Chicago, Ill.
Improved Fowler—Wm. Highton & Sons Co., Nashua, N. H.
Johnson Service Co., Milwaukee, Wis.
Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Kees, F. D., Mfg. Co., Beatrice, Neb.
Kellum—Hess & Barker, Philadelphia, Pa.
Kewanee Boiler Co., Kewanee, Ill.
Kieley & Muller, New York, N. Y.
Kitts Mfg. Co., Oswego, N. Y.
Lawler's—Lawler Waterfeed & Damper Co., Mt. Vernon, N. Y.
Lezius—The Hotstream Heater Co., Cleveland, O.
Liberty—The Herman Nelson Corp., Moline, Ill.
Locke Regulator Co., Salem, Mass.
Mason Regulator Co., Boston, Mass.
Master Heat Regulator Co., St. Paul, Minn.
McAlear Mfg. Co., Chicago, Ill.
McDonough Coal Saving Corp., Detroit, Mich.
Mediphragm—Jas. P. Marsh & Co., Chicago, Ill.
Metaphram—National Regulator Co., Chicago, Ill.
Minneapolis Heat Regulator Co., Minneapolis, Minn.
Monarch—Riverside Mfg. Co., Newark, N. J.
Monash-Younker Co., Chicago, Ill.
Nason Mfg. Co., New York, N. Y.
Newbury Mfg. Co., Monroe, N. Y.
Open Coil Heater & Purifier Co., Indianapolis, Ind.
O. E. Specialty Mfg. Co., Milwaukee, Wis.
Perry, T. O., Oak Park, Ill.
Powers Regulator Co., Chicago, Ill.
Puffer, W. E., & Sons, New York, N. Y.
Ruggles-Klingemann Mfg. Co., Salem, Mass.
Sarco Co., Inc., New York, N. Y.
Simplex Heater Control Co., St. Paul, Minn.
Sims Co., The, Erie, Pa.
The "S-C"—The "S-C" Regulator Co., Fostoria, O.
Spencer Regulator Co., Salem, Mass.
Spencer—James L. Robertson & Sons, New York, N. Y.
Sterling Engineering Co., Milwaukee, Wis.
Stillman-Carmichael Co., Boston, Mass.
Sylphon—The Fulton Co., Knoxville, Tenn.
Thrush, H. A., & Co., Peru, Ind. (Automatic.)
Thwing Instrument Co., Philadelphia, Pa.
Turner Heating Co., Providence, R. I.
Tycos—Taylor Instrument Companies, Rochester, N. Y.
Walworth Company, Boston, Mass.
Watts Regulator Co., Lawrence, Mass.
Western Electric—Western Electric Co., Chicago, Ill.
Wiley Safety Vent—Simplex Heating Specialty Co., Lynchburg, Va.
Wing, L. J., Mfg. Co., New York, N. Y. (Trade names—Spencer, Wydawake.)
Wolverine Temperature Regulator Co., Marshall, Mich.

REGULATORS, DISCHARGE.

Johnson—The Larner-Johnson Valve & Engineering Co., Philadelphia, Pa.

REGULATORS, DRAFT.

Chapman—The Chapman Engineering Co., Mt. Vernon, O.
McDonough Coal Saving Corp., Detroit, Mich. "McDonough."
Mason Regulator Co., Boston, Mass.
Perfect—The Wm. D. Luce Co., Haverhill, Mass.
Rado Co., The, Milwaukee, Wis.

REGULATORS FOR DRINKING FOUNTAINS.

Prostco—Providence Steam Trap Co., Providence, R. I.

REGULATORS, ELECTRIC MOTOR.

C-H—The Cutler-Hammer Mfg. Co., Milwaukee, Wis.
Federal Gauge Co., Chicago, Ill.
Sundh Electric Co., Newark, N. J.

REGULATORS, CONTROLLERS, OR GOVERNORS, FAN ENGINE.

Atlas Valve Co., Newark, N. J.
Cash Co., A. W., Decatur, Ill.
Fisher Governor Co., Inc., Marshalltown, Iowa.
Foster—Foster Engineering Co., Newark, N. J.
Foster—Walworth Company, Boston, Mass.
Illinois Engineering Co., Chicago, Ill.
Kitts Mfg. Co., Oswego, N. Y.
K. & T.—Klipfel Mfg. Co., Chicago, Ill.
Mason Regulator Co., Boston, Mass. "Mason."
McAlear Mfg. Co., The, Chicago, Ill.
O.K.—Kitts Steam Specialties Co., Oswego, N. Y.
Ruggles-Klingemann Mfg. Co., Salem, Mass.
Smoot Engineering Corp'n, New York, N. Y.
Strong, Carlisle & Hammond Co., The, Cleveland, O. "Strong."
Watson—Watson & McDaniel Co., Philadelphia, Pa.
Watts Regulator Co., Lawrence, Mass.

REGULATORS, FEED WATER.

Berry—The Berry Engineering Co., Chester, Pa.
Bordo—L. J. Bordo Co., Philadelphia, Pa.
Burrows—F. A. Burrows Mfg. Co., York, Pa.
Dreadnaught—Central Machine Co., Philadelphia.
Economy—American Safety Lamp & Mine Supply Co., Scranton, Pa.
Elliott Co., Jeannette, Pa.
Foster—Walworth Company, New York, N. Y.
Kieley & Muller, New York, N. Y. "Kieley."
Kitts—Kitts Mfg. Co., Oswego, N. Y.
McAlear Mfg. Co., The, Chicago, Ill.
McDonough Coal Savings Corp., Detroit, Mich. "McDonough."
Manning—The Cleveland Feed Water Regulator Co., Cleveland, O.
Northern Equipment Co., Erie, Penna.
Perfection—Kitts Steam Specialties Co., Oswego, N. Y.
Powers Regulator Co., Chicago, Ill.
Sarco Co., Inc., New York, N. Y.
Smoot Engineering Corp'n, New York, N. Y.
Strong, Carlisle & Hammond Co., Cleveland, Ohio. "Strong."
Squires, C. E., Co., The, Cleveland, O. "Squires," "The Genuine."
Thermoflax—W. D. Cashin, Boston, Mass.
Vigilant—Chaplin-Fulton Mfg. Co., Pittsburgh, Pa.
Vogt Brothers Mfg. Co., Louisville, Ky.
Volz—Volz Engineering Equipment Co., Long Beach, Cal.
Watts Regulator Co., Lawrence, Mass.
Williams Gauge Co., The, Pittsburgh, Pa. "Stets."
Witt, G. E., Co., Inc., San Francisco, Cal.
Wright-Austin Co., Detroit, Mich.

REGULATORS, FLOW.

Davis, G. M., Regulator Co., Chicago, Ill.

REGULATORS, FLUSH TANK.

M. I. W., I. X. L.—Modern Iron Works, Quincy, Ill.
IXL—Pacific Flush Tank Co., Chicago, Ill.

REGULATORS, GAS.

Bryant—Bryant Heater & Mfg. Co., Cleveland, O.
Crawford—Equitable Meter Co., Pittsburgh, Pa.
Foster—Foster Engineering Co., Newark, N. J.
Hennebohle Co., Chicago, Ill.
Improved Perfect—Perfect Gas Controller & Fixture Co., Chicago, Ill.
Johnson—Johnson Gas Appliance Co., Cedar Rapids, Iowa.
Locke—Locke Regulator Co., Salem, Mass.
Luther Mfg. Co., Inc., Olean, N. Y. "Luther."
McAlear Mfg. Co., The, Chicago, Ill.
McCullough, National—The National Gas Governor Co., New York.
Matthews, W. N. & Bro., Inc., St. Louis, Mo.
Mueller Co., Decatur, Ill.
Mueller Steam Specialty Co., Inc., New York, N. Y.
Oil Well Supply Co., Pittsburgh, Pa.
Pickering—The Pickering Governor Co., Portland Conn.
Powers Regulator Co., Chicago, Ill.
Reliance—Reliance Mfg. Co., Pasadena, Cal.
Sarco Co., Inc., New York, N. Y.
Sprague—Sprague Meter Co., The, Bridgeport, Conn
Springfield—Gilbert & Barker, Springfield, Mass.
Standard—E. C. Merrill, Pittsburgh, Pa.
Strater, Herman, & Sons, Boston, Mass. (Carbonic.)
Try-Me—Tryco Products, Inc., Westfield, Mass.
Union Water Meter Co., Worcester, Mass.
Watson—Watson & McDaniel Co., Philadelphia, Pa.
Wilson-Daum Co., Pittsburgh, Pa. (Trade names—Fulton, Little Giant.)
Young's—Equitable Meter Co., Pittsburgh, Pa.

REGULATORS, HUMIDITY.

Atlas Valve Co., Newark, N. J.
Foxboro Co., Inc., The, Foxboro, Mass.
Humidostat—Johnson Service Co., Milwaukee, Wis.
Swan—Klipfel Mfg. Co., Chicago, Ill.

REGULATORS, OIL BURNER.

Defiance Packless Valve & Mfg. Co., Quincy, Ill. "Defiance."
Leslie—The Leslie Co., Lyndhurst, N. J.
McDonnell & Miller, Chicago, Ill. "McDonnell & Miller."
Tate-Jones & Co., Inc., Leetsdale, Pa.

REGULATORS, OIL LEVEL.

Vigilant—Chapin-Fulton Mfg. Co., Pittsburgh, Pa.

REGULATORS, OXYGEN, ACETYLENE AND HYDROGEN.

Carbic Manufacturing Company, Duluth, Minn.
Eveready—Oxweld Acetylene Co., New York, N. Y.
Federal—Federal Brass Works, Chicago, Ill.
Foster—Foster Engineering Co., Newark, N. J.
Meco—Modern Engineering Co., St. Louis, Mo.
Messer Welding Supply Corp., Brooklyn, N. Y.
Milburn—Alexander Milburn Co., Baltimore, Md.
Oxweld—Oxweld Acetylene Co., New York, N. Y.
Rego—Bastian-Blessing Co., The, Chicago, Ill.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld—Torchweld Equipment Co., Chicago, Ill.
Weldit—Weldit Acetylene Co., Detroit, Mich.

REGULATORS, PRESSURE, AIR.

Bishop & Babcock Co., The, Cleveland, O.
Brunner Mfg. Co., Utica, N. Y.
Burdett Mfg. Co., Chicago, Ill.
C. C.—Crane Valve Co., Bridgeport, Conn.
Champion—The Cleveland Faucet Co., Cleveland, O
Clark—H. W. Clark Co., Mattoon, Ill.
Curtis—Julian d'Este Co., Boston, Mass.
Federal Gauge Co., Chicago, Ill.
Fisher Governor Co., Marshalltown, Iowa.
Foster—Foster Engineering Co., Newark, N. J.
IXL Pump & Mfg. Co., The, Philadelphia, Pa.
K. & T.—Klipfel Mfg. Co., Chicago, Ill.
Leslie—The Leslie Co., Lyndhurst, N. J.
Mason—Mason Regulator Co., Boston, Mass.
McAlear Mfg. Co., The, Chicago, Ill.
Mueller Co., Decatur, Ill.
Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.
Powers Regulator Co., Chicago, Ill.
Ruggles-Klingemann Mfg. Co., Salem, Mass. "R-K."
Smoot Engineering Corp'n, New York, N. Y.
Strater's—Herman Strater & Sons, Boston, Mass.
Tagliabue Mfg. Co., C. J., Brooklyn, N. Y.
Trojan—Ross Valve Mfg. Co., Inc., Troy, N. Y.
Try-Me—Tryco Products, Inc., Westfield, Mass.
Tycos—Taylor Instrument Companies, Rochester, N. Y.
Usaco—United States Air Compressor Co., Cleveland, Ohio.
Walworth Company, The, Boston, Mass.
Watson—Watson & McDaniel Co., Philadelphia, Pa.
Watts—Watts Regulator Co., Lawrence, Mass.

REGULATORS, PRESSURE, STEAM.

(See also "Valves, Pressure Reducing")

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
American District Steam Co., North Tonawanda, N. Y.
Atlas—Hall Mfg. Co., Harrison, N. J.
C. C.—Crane Valve Co., Bridgeport, Conn.
Curtis—Julian d'Este Co., Boston, Mass.
Davis Regulator Co., G. M., Chicago, Ill.
Electrite—Sundh Electric Co., Newark, N. J.
Federal Gauge Co., Chicago, Ill.
Fisher—The Fisher Governor Co., Marshalltown, Iowa.
Foster—Foster Engineering Co., Newark, N. J.
Foster—Walworth Company, Boston, Mass.
Garratt, W. T., & Co., San Francisco, Cal.
Hydraulic Press Mfg. Co., The, Columbus, O. (high pressure). "H. P. M."
Hornung, J. C., Chicago, Ill.
Kieley & Muller, New York, N. Y. "Kieley."
Kitts—Kitts Mfg. Co., Oswego, N. Y.
Klipfel Mfg. Co., Chicago, Ill.
Lamy, A., & Son, Elizabeth, N. J.
Leslie—The Leslie Co., Lyndhurst, N. J.
Locke Regulator Co., Salem, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Lytton—Lytton Mfg. Corp., Franklin, Va.
Mason—Mason Regulator Co., Boston, Mass.
McAlear Mfg. Co., The, Chicago, Ill.
Minneapolis Heat Regulator Co., Minneapolis, Minn.
Mueller Co., Decatur, Ill.
Nason Manufacturing Co., New York, N. Y.
National Regulator Co., Chicago, Ill.
Perfect, Simplex—C. J. Tagliabue Mfg. Co., Brooklyn, N. Y.
Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
Pittsburgh Valve & Fittings Co., Barberton, O.
Powers Regulator Co., Chicago, Ill.
R-K—Ruggles-Klingemann Mfg. Co., Salem, Mass.
Strong, Carlisle & Hammond Co., The, Cleveland, O. "Strong."
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Trojan—Ross Valve Mfg. Co., Inc., Troy, N. Y.
Try-Me—Tryco Products, Inc., Westfield, Mass.
Union Water Meter Co., Worcester, Mass.
Watson—Watson & McDaniel Co., Philadelphia, Pa.
Watts Regulator Co., Lawrence, Mass.

REGULATORS, PRESSURE, WATER.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Anderson—Golden-Anderson Valve Specialty Co., Pittsburgh, Pa.
Bishop & Babcock Co., Cleveland, O.
Buckeye—Buckeye Pump & Mfg. Co., The, Columbus, Ohio.
Cash, A. W., Company, Decatur, Ill.
Cleveland Faucet Co., The, Cleveland, O.
Curtis—Julian d'Este Co., Boston, Mass.

Economy Pumping Machinery Co., Chicago, Ill.
Engel Mfg. Co., Syracuse, N. Y.
Federal Gauge Co., Chicago, Ill.
Fisher Governor Co., Marshalltown, Iowa.
Foster—Foster Engineering Co., Newark, N. J.
Foster—Walworth Company, Boston, Mass.
Fulton—Chapin-Fulton Mfg. Co., Pittsburgh, Pa. (back or check).
Hoosier—Flint & Walling Mfg. Co., Kendallville, Ind.
IXL Pump & Mfg. Co., The, Philadelphia, Pa.
Kieley & Muller, New York, N. Y. "Kieley."
Kitts—Kitts Mfg. Co., Oswego, N. Y.
Locke—Locke Regulator Co., Salem, Mass.
Mason Regulator Co., Boston, Mass.
McAlear Mfg. Co., The, Chicago, Ill.
Mueller Co., Decatur, Ill.
Pittsburgh Valve, Fdy. & Construction Co., Pittsburgh, Pa.
Powers Regulator Co., Chicago, Ill.
R-K—Ruggles-Klingemann Mfg. Co., Salem, Mass.
Robertshaw Thermostat Co., Youngwood, Pa.
Strong's—The Strong, Carlisle & Hammond Co., Cleveland, O.
Trojan—Ross Valve Mfg. Co., Inc., Troy, N. Y.
Try-Me—Tryco Products, Inc., Westfield, Mass.
Union Water Meter Co., Worcester, Mass.
Watson-Stillman Co., New York, N. Y.
Watson—Watson & McDaniel Co., Philadelphia, Pa.
Watts Regulator Co., Lawrence, Mass.

REGULATORS, STOKER.

Fisher Governor Co., Marshalltown, Iowa.
McAlear Mfg. Co., The, Chicago, Ill.
McDonough—McDonough Coal Savings Corp., Detroit, Mich.
Mason Regulator Co., Boston, Mass.
Watson & McDaniel Co., Philadelphia, Pa. "Watson."

REGULATORS, TANK.

Burrows—F. A. Burrows Mfg. Co., York, Pa.
I. X. L.—Modern Iron Works, Quincy, Ill.
Kitts—Kitts Mfg. Co., Oswego, N. Y.
O.K.—Kitts Steam Specialties Co., Oswego, N. Y.
McAlear Mfg. Co., The, Chicago, Ill.
Mason Regulator Co., Boston, Mass.
Minneapolis Heat Regulator Co., Minneapolis, Minn.
Powers—Powers Regulator Co., Chicago, Ill.
Sarco Co., Inc., New York, N. Y.
Sylphon—Fulton Company, The, Knoxville, Tenn.

REGULATORS, TEMPERATURE.

(See also "Thermostats" and "Regulators, Damper.")
American Gas Furnace Co., Elizabeth, N. J.
American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Anderson—The Anderson Mfg. Co., Philadelphia Pa
Atlas Valve Co., Newark, N. J.
Bishop & Babcock Co., The, Cleveland, O.
Bristol's—Bristol Co., The, Waterbury, Conn.
Carrier Air Conditioning Co., Buffalo, N. Y.
Curtis—Julian d'Este Co., Boston, Mass.
Engelhard, Chas., Inc., New York, N. Y.
Faultless—C. J. Tagliabue Mfg. Co., Brooklyn, N. Y.
Federal Gauge Co., Chicago, Ill.
Foxboro Co., Inc., The, Foxboro, Mass.
Fulton Sylphon Co., Knoxville, Tenn.
Hornung, J. C., Chicago, Ill.
Illinois Malleable Iron Co., Chicago, Ill. "Chicago."
Johnson—Johnson Service Co., Milwaukee, Wis.
McAlear Mfg. Co., The, Chicago, Ill.
Marvel—American Thermostat Co., Newark, N. J.
Master—Master Heat Regulator Co., The, St. Paul, Minn.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn. "Minneapolis."
National Regulator Co., Chicago, Ill.
Perfect—C. J. Tagliabue Mfg. Co., Brooklyn, N. Y.
Powers—The Powers Regulator Co., Chicago, Ill.
Sarco—Sarco Co., Inc., New York.
Simplex—Simplex Heating Specialty Co., Lynchburg, Va.
Smoot Engineering Corp'n, New York, N. Y.
Spence Engineering Co., Inc., New York, N. Y.
Sterico-Roys—Sterling Engineering Co., Milwaukee, Wis.
Swan—Klipfel Mfg. Co., Chicago, Ill.
Sylphon Regitherm—Fulton Company, The, Knoxville, Tenn.
Thrush—H. A. Thrush & Co., Peru, Ind.
Twentieth Century—Atwood & Morrill, Salem, Mass.
Tycos—Taylor Instrument Companies, Rochester, N. Y.
V. R. Co.—Vapor Regulator Co., Philadelphia, Pa.
Western Electric Co., Inc., Chicago, Ill.
Wolverine—Wolverine Temperature Regulator Co., Marshall, Mich.

REGULATORS, TEMPERATURE, HOT WATER.

Boylston Steam Specialty Co., Chicago, Ill. "Boylston."
Curtis—Julian d'Este & Co., Boston, Mass.
Hennebohle Co., Chicago, Ill.
Honeywell—Honeywell Heating Specialty Co., Wabash, Ind.
Hotstream—Hotstream Heater Co., Cleveland, O.
Kieley & Muller, New York, N. Y. "Kieley."
Lawler's—Lawler Waterfeed & Damper Co., Mt. Vernon, N. Y.
McAlear Mfg. Co., The, Chicago, Ill.
Minneapolis—Minneapolis Heat Regulator Co., Minneapolis, Minn.
Mueller Co., Decatur, Ill.
National Regulator Co., Chicago, Ill.
Powers—The Powers Regulator Co., Chicago, Ill.
Reading Heater & Supply Co., Reading, Pa.
Robertshaw Tank Regulator—Robertshaw Thermostat Co., Youngwood, Pa.
Sarco—Sarco Co., Inc., New York.
Swan—Klipfel Mfg. Co., Chicago, Ill.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y.
Victor—Standard Regulator Co., New York, N. Y
Watchman—The Wm. D. Luce Co., Haverhill, Mass.
Winner—The Winner Co., New York, N. Y.

REGULATORS, VACUUM.

Federal Gauge Co., Chicago, Ill.
Fisher Governor Co., Marshalltown, Iowa.
Kieley & Muller, New York, N. Y. "Kieley."
McAlear Mfg. Co., The, Chicago, Ill.
Mason Regulator Co., Boston, Mass.
R-K—Ruggles-Klingemann Mfg. Co., Salem, Mass.
Smoot Engineering Corp'n, New York, N. Y.
Watts Regulator Co., Lawrence, Mass.

REGULATORS, WATER LEVEL.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Federal Gauge Co., Chicago, Ill.
Fisher Governor Co., Marshalltown, Iowa.
Kieley & Muller, New York, N. Y. "Kieley."
Klipfel Mfg. Co., Chicago, Ill.
McAlear Mfg. Co., The, Chicago, Ill.
Ofeldt—Mears-Kane-Ofeldt, Inc., Philadelphia, Pa.
Swartwout—The Swartwout Co., Cleveland, O.
Wright-Austin Co., Detroit, Mich.

REGULATORS, WATER WHEEL.

Allis-Chalmers Mfg. Co., Milwaukee, Wis.
Bradway, C. P., Machine Works, West Stafford, Conn.
Hunt—Rodney Hunt Machine Co., Orange, Mass.

REHEATERS, AIR.

Ingersoll-Rand Co., New York, N. Y.
Whitlock Coil Pipe Co., Hartford, Conn.

REHEATERS, EXHAUST STEAM.

Hussey, McCann & Co., New York, N. Y.

RELIEF, PRESSURE, HEATING BOILER.

Thrush Differential—H. A. Thrush & Co., Peru, Ind.

REMOVERS, BUSHING.

Reliable—Conant & Donelson Co., Conway, Mass.

REMOVERS, FUEL OIL SLUDGE.

International Chemical Co., Philadelphia, Pa.

REPAIRS, BOILER TUBE.

Campbell-Zell—E. J. Codd Co., Baltimore, Md.

REPAIRS AND PARTS, COMPRESSION AND FULLER COCKS.

American Foundry & Mfg. Co., St. Louis, Mo. (Trade names—Alaska, National, T. E. Challenge, Murdock, McNamara, Empire, California.)
American Sanitary Mfg. Co., Abingdon, Ill.
Ampinco—American Pin Co., Waterbury, Conn.
Burlington Brass Works, Burlington, Wis.
Cochrane, J. A., Brass Mfg. Co., The, Cleveland, O.
Hays Mfg. Co., Erie, Pa.
Haydenville Co., The, Haydenville, Mass.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Peerless Mfg. & Supply Co., New York, N. Y.
Salem Brass & Iron Mfg. Co., Bridgeton, N. J.
Savill's, Thomas, Sons, Philadelphia, Pa.
Smith, E. C., Mfg. Co., Chicago, Ill.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Street & Kent Mfg. Co., Chicago, Ill.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
Woodward-Wanger Co., Philadelphia, Pa.

REPAIRS, RANGE BOILER, TANK, PIPE, ETC.

Butterworth Supply Co., Philadelphia, Pa.
Connery & Co., Inc., Philadelphia, Pa.
Good Mfg. Co., New York, N. Y.
J. R. S. Specialties Mfg. Co., Inc., The, New York, N. Y.
Modern Mfg. Co., The, Cleveland, O.
Ryan & Fitzpatrick Co., Inc., Troy, N. Y.
Woodward-Wanger Co., Philadelphia, Pa.

Reseating Tools

SKINNER Valve Reseating Tools
SKINNER Utility Reseaters
SKINNER Combined Reseating Tools
SKINNER Self-Aligning Bibb Reseaters
SKINNER Bibb Reseaters
SKINNER Motor Valve Reseaters

Write for stock proposition

M. B. SKINNER CO., - Chicago

REPLACERS, CAR.

Aldon—The Aldon Co., Chicago, Ill.
Buda—The Buda Co., Harvey, Ill.
J. C.—The Joyce-Cridland Mfg. Co., Dayton, O.
Richardson & Tallman, Shelbyville, Ill.

RESAWS, BAND AND CIRCULAR.

American Saw Mill Machinery Co., Hackettstown, N. J.
Fowle, John L., Woburn, Mass.

RESEATING TOOLS, VALVE AND BIBB.

(See also "Reamers, Bibb.")
McCaffrey Mfg. Co., Chicago, Ill.
M. B. Skinner Co., Chicago, Ill.

RESPIRATORS AND RESUSCITATING DEVICES.

American Atmos Corp., Pittsburgh, Pa. "Draeger."
American Thermo-Ware Co., New York. "Autocrat."
Chicago Eye Shield Co., Chicago, Ill.
Diamond Rubber Co., Inc., Akron, O.
Elmer, H. N., Chicago, Ill.
Genco—General Scientific Equipment Co., North Philadelphia, Pa.
Hygeia Respirator Co., Inc., New York, N. Y. "Diamond Disc," "Diamond Mask."
Lungmotor Co., Boston, Mass.
Mine Safety Appliances Co., Pittsburgh, Pa. (Trade names—M-S-A., Self Rescuer, H-H.)
Pulmosan—Pulmosan Safety Equipment Co., Brooklyn, N. Y.
Safety Equipment Service Co., The, Cleveland, O.
Standard Safety Equipment Co., Chicago, Ill.
Willson Goggles, Inc., Reading, Pa. "Dustite."

RESTS, HAND, FOR LATHES.

American Tool & Machine Co., Boston, Mass.
McCrosky—The McCrosky Tool Corp., Meadville, Pa.

RESTS, PIPE.

American Brand—American Pipe Tool Co., Chicago, Ill.
Millers Falls Co., Millers Falls, Mass.
Oster Mfg. Co., The, Cleveland, O. (for threading machines).

RESTS, PIPE.

Alabama Pipe Co., Anniston, Ala.
Chicago Nipple Mfg. Co., Chicago, Ill.
Chicago Pipe Co., Chicago, Ill.
Fee & Mason Mfg. Co., New York, N. Y.
Gulf States Pipe Corp., Anniston, Ala.
M. I. W.—Modern Iron Works, Quincy, Ill.
Square Gee—Grabler Mfg. Co., Cleveland, O.

RESTS, SLIDE, FOR LATHES.

American Tool & Machine Co., Boston, Mass.
Blount, J. G., & Co., Everett, Mass.
Goodell-Pratt Co., Greenfield, Mass.

RESTS, VALVE.

Mitchell & Van Meter Co., Philadelphia, Pa.
Salem Brass & Iron Mfg. Co., Bridgeton, N. J.
Sanitary Company of America, Linfield, Pa.

RETAINERS, PUMP VALVE.

Furness Brothers Co., Chicago, Ill.

RETARDERS, FUEL.

Combustion Engineering Corp., New York, N. Y. "Green."

RINGS, CURTAIN, SHOWER BATH.

Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.

RINGS, EXPANSION, HOSE COUPLING.

American Foundry & Mfg. Co., St. Louis, Mo.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Schlangen Bros Co., Chicago, Ill.
Seattle Brass Co., Seattle, Wash.
Sherman Mfg. Co., H. B., Battle Creek, Mich.

RINGS, FELT, DUST EXCLUDING.

Auburn Leather Goods Co., Hartford, Conn.
Booth Felt Co., Inc., The, Brooklyn, N. Y.
Seattle Brass Co., Seattle, Wash.

RINGS, PIPE HANGING.

Blue Ribbon—Chicago Nipple Mfg. Co., Chicago, Ill.
Isert, John H., Co., Inc., Louisville, Ky.
Jumbo Heater & Mfg. Co., The, Cleveland, O.
Modern Mfg. Co., The, Cleveland, O.
Newbury, Jay H., & Son, Goshen, N. Y.
Robinson Mfg. Co., The, Cleveland, O.
Walworth Company, Boston, Mass.

RINGS, PIPE PULLING.

Watson-Stillman Co., The, New York, N. Y.

RINGS, RANGE BOILER.

(See "Stands, Range Boiler.")

RINGS AND RODS, SHOWER BATH.

American Sanitary Mfg. Co., Abingdon, Ill.
Art Brass Co., New York, N. Y.
Brasscrafters—J. P. Eustis Mfg. Co., Boston, Mass.
Columbia—Speakman Co., Wilmington, Del.
Enamo—W. R. Hughes Co., Inc., New York, N. Y.
Federal-Huber Co., Chicago, Ill.
Goetz Brass Co., Chicago, Ill.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Kelly, Thos., & Bros., Chicago, Ill.
Kent, F. C., Irvington, N. J.
Peck Bros. & Co., New Haven, Conn.
Royal Brass Mfg. Co., Cleveland, O.
Rundle-Spence Mfg. Co., Milwaukee, Wis.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Smith, E. C., Mfg. Co., Chicago, Ill.

RINGS, SHAFTING, LEATHER.

Graton & Knight Co., Worcester, Mass.

RINGS, SOIL PIPE TESTING, RUBBER.

Canfield, H. O., Co., Bridgeport, Conn.
Canfield Rubber Co., Bridgeport, Conn.
Diamond Rubber Co., Akron, O.
Wilbow—Williams-Bowman Rubber Co., Cicero, Ill.
Woodward-Wanger Co., Philadelphia, Pa.

RINGS, STEAM GAUGE.

Waterbury Mfg. Co., Waterbury, Conn.

RINGS, TANK AND PLUNGER, RUBBER.

Canfield Rubber Co., The, Bridgeport, Conn.
Canfield, H. O., Co., The, Bridgeport, Conn.
Durst Mfg. Co., The, New York, N. Y.
Woodward-Wanger Co., Philadelphia, Pa.

RINGS AND WEDGES, TOOL POST.

Williams, J. H., & Co., Buffalo, N. Y.

RINGS, VALVE.

General Asbestos & Rubber Co., Charleston, S. C. "Garco Perfect."

RIVETERS, ELECTRIC.

Winfield Electric Welding Machine Co., Warren, O. "Winfield."
Wodack Electric Tool Corp., Chicago, Ill. "Wodack."

RIVETERS, HYDRAULIC.

Bethlehem Steel Co., Bethlehem, Pa.
Chambersburg Engineering Co., Chambersburg, Pa.
Mackintosh-Hemphill Co., Pittsburgh, Pa.
Mesta Machine Co., Pittsburgh, Pa.
Morgan Engineering Co., Alliance, O.
Niles-Bement-Pond Co., New York.
Sellers & Co., Inc., Wm., Philadelphia, Pa.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Wood & Co., R. D., Philadelphia, Pa.
Wood, William H., Media, Pa.

RIVETERS, HYDRO-PNEUMATIC.

Harnischfeger Corp., The, Milwaukee, Wis.

RIVETERS, PNEUMATIC.
(See also "Tools, Pneumatic.")

Allen Co., John F., New York.
Baird—Baird Pneumatic Tool Co., Kansas City, Mo.
Bliss Co., E. W., Brooklyn, N. Y.
Canton—Canton Pneumatic Tool Co., Canton, O.
Chicago Pneumatic Tool Co., New York, N. Y. "Boyer."
Dallet Co., Thos. H., Philadelphia, Pa.
Dayton Pneumatic Tool Co., The, Dayton, O.
Ingersoll-Rand Co., New York.
Shepard Electric Crane & Hoist Co., Montour Falls, N. Y.
Slocomb, F. F., & Co., Wilmington, Del.

RIVETERS, STAKE.

Badger—Rock River Machine Co., Janesville, Wis.

RIVETS, BOILER, TANK AND STRUCTURAL.

American Bolt Co., Birmingham, Ala.
American Bolt Corp., Chicago, Ill.; Detroit, Mich.; Bayonne, N. J.
American Equipment Co., Norristown, Pa.
Atlas—Atlas Bolt & Screw Co., Cleveland, O.
Automatic Products Corp., Long Island City, N. Y.
Baird Pneumatic Tool Co., Topeka, Kan.
Bethlehem Steel Co., Bethlehem, Pa.
Blake & Johnson Co., The Waterbury, Conn.
Bourne-Fuller Co., The, Unionville, Conn.
Bros, Wm., Boiler & Mfg. Co., Minneapolis, Minn.
Buffalo Bolt Co., Buffalo, N. Y.
Continental Bolt & Iron Works, Chicago, Ill.
Follansbee Bros. Co., Pittsburgh, Pa.
Gary Screw & Bolt Co., Chicago, Ill.
Garland Mfg. Co., Pittsburgh, Pa.
Graham Bolt & Nut Co., Pittsburgh, Pa.
Hoopes & Townsend Co., Philadelphia, Pa.
Igoe Bros., Newark, N. J.
Inland Steel Co., Chicago, Ill.
Interstate Iron & Steel Co., Chicago, Ill.
Kirk-Latty Mfg. Co., The, Cleveland, O.
Lamson & Sessions Co., The, Cleveland, O.
Lanz, M., Bolt Co., Pittsburgh, Pa.
National Bolt & Nut Co., Pittsburgh, Pa.
National—National Screw & Mfg. Co., Cleveland, O.
Neely Nut & Bolt Co., Pittsburgh, Pa.
Nelson Rivet Co., Taunton, Mass.
Oliver Iron & Steel Corp., Pittsburgh, Pa.
Pittsburgh Rivet Co., Pittsburgh, Pa.
Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.
Republic Iron & Steel Co., Pittsburgh, Pa.
Severance, S., Mfg. Co., Glassport, Pa.
Specialty Bolt & Rivet Works, Shelton, Conn.
Thompson, Judson L., Mfg. Co., Waltham, Mass.
Townsend Company, New Brighton, Pa.
Victor—The Champion Rivet Co., Cleveland, O.
Upson Nut Co., Cleveland, O.
Wonder—Hardsocg Wonder Drill Co., Ottumwa, Ia.

RIVETS AND BURRS, BRASS AND COPPER.

American Screw Co., Providence, R. I.
Atlas Bolt & Screw Co., Cleveland, Ohio.
Atlas Tack Corp., Fairhaven, Mass.
Blake & Johnson Co., The, Waterbury, Conn.
Chicago Rivet & Specialty Co., Cicero, Ill. "C. R. & S."
Clark Bros. Bolt Co., Inc., Milldale, Conn.
Clendenin Bros., Inc., Baltimore, Md.
Cleveland Wrought Products Co., Cleveland, O.
Continental Wood Screw Co., New Bedford, Mass.
Federal—Federal Asbestos Co., Paterson, N. J. (Split.)
Gaskell, Wm. & Son, Brooklyn, N. Y.
Grammes, L. F., & Sons, Allentown, Pa.
Hassall, John, Inc., Brooklyn, N. Y.
Hercules—Hercules Belt Lacer Mfg. Co., Chicago, Ill.
Hussey, C. G., & Co., Pittsburg, Pa.
L. X.—Manufacturers' Belt Hook Co., Chicago, Ill.
National Screw & Mfg. Co., Cleveland, O.
Nelson Rivet Co., Taunton, Mass.
North American Copper Co., New York, N. Y.
Pawtucket Mfg. Co., Pawtucket, R. I.
Pheoll Mfg. Co., Chicago, Ill.
Phoenix Specialty Mfg. Co., New York, N. Y.
Plume & Atwood Mfg. Co., Waterbury, Conn.
Rome Brass & Copper Co., Rome, N. Y.
Star—U. T. Hungerford Brass & Copper Co., New York, N. Y.
Stimpson, Edwin B., Co., Brooklyn, N. Y.
Talcott, W. O. & M. W., Providence, R. I. "Ideal."
Taunton Rivet Works, Taunton, Mass.
Waterbury Mfg. Co., Waterbury, Conn.

RIVETS, GALVANIZED.

Garland Mfg. Co., Pittsburgh, Pa.
Igoe Bros., Newark, N. J.
Rockford Bolt Co., Rockford, Ill.

RIVETS, SOFT STEEL, SMALL.

Columbus Bolt Works Co., The, Columbus, O.

RIVETS, HULL.

Neely Nut & Bolt Co., Pittsburgh, Pa.

RIVETS, TUBULAR AND SPLIT.

C. R. & S.—Chicago Rivet & Specialty Co., Cicero, Ill.
Crescent—Crescent Belt Fastener Co., Inc., New York, N. Y.
Equipoise Rivet Co., Waterbury, Conn.
Manufacturers Belt Hook Co., Chicago, Ill.
Nelson Rivet Co., Taunton, Mass.
Stimpson, Edwin B., Co., Brooklyn, N. Y.
Talcott, W. O. & M. W., Inc., Providence, R. I. (Split).
Tubular Rivet & Stud Co., Boston, Mass.

ROD ENDS.

Williams, J. H., & Co., Brooklyn, N. Y.

RODS, BRASS, BRONZE & COPPER.

(See Brass Rods, Bronze Rods and Copper Rods.)

RODS, CLOSET FLOAT, AND WIRES, TANK BULB.

American Brass & Copper Co., New York, N. Y.
Ampinco—American Pin Co., Waterbury, Conn.
Bridgeport Brass Co., Bridgeport, Conn.
Chicago Nut Mfg. Co., Chicago, Ill.
Frank Bros., New York, N. Y.
Frost Mfg. Co., Kenosha, Wis.
Morency-Van Buren Mfg. Co., Sturgis, Mich.
Nelson, Ira I., Boston, Mass.
Hindley Mfg. Co., Valley Falls, R. I.
Peerless Mfg. & Supply Co., New York, N. Y.
Richards, Benjamin, & Co., Winsted, Conn.
Russell, John M., Mfg. Co., Naugatuck, Conn.
Sherwood Brass Works, Detroit, Mich.
Tryco—Tryco Products, Inc., Westfield, Mass.
Woodward-Wanger Co., Philadelphia, Pa.

RODS, DRILL
(For Twist Drills, Reamers, Etc.)

Ajax, Invincible, Unita—Kidd Drawn Steel Co., Aliquippa, Pa.
Halcomb Steel Co., Syracuse, N. Y.
Lancaster Steel Products Corp., Lancaster, Pa.
Monaca, Reliance—Pittsburgh Tool Steel Wire Co., Monaca, Pa.
National Drawn Steel Co., The, East Liverpool, O.
Superior & Star—Peter A. Frasse & Co., Inc., New York.
Wickwire-Spencer Steel Corp., New York, N. Y.

RODS, FLUE CLEANER.

Skinner, M. B., Chicago, Ill. "Butman."

RODS, GAGING.

Kraft, A. C., Chicago, Ill. (barrel).
Lufkin Rule Co., Saginaw, Mich.
Stanley Rule & Level Plant, New Britain, Conn.
Tagliabue, Chas. J., Mfg. Co., Brooklyn, N. Y.

RODS, GLASS.

Doerco—Doerr Glass Co., Vineland, N. J.

RODS, HYDRANT.

American Foundry & Mfg. Co., St. Louis, Mo.
Hauer, J. B., Inc., Brooklyn, N. Y.
Hays Mfg. Co., Erie, Pa.

RODS, LEVEL.

Sterling—Warren-Knight Co., Philadelphia, Pa.

RODS, PIPE.

Bethlehem Steel Co., Bethlehem, Pa.

RODS, PISTON.

Bethlehem Steel Co., Bethlehem, Pa.
Eagle Brand—Taunton-New Bedford Copper Co., Taunton, Mass.
Marine Bronze—The Randolph-Clowes Co., Waterbury Conn.
United Alloy Steel Corp., Canton, O.

RODS, PUDDLING

Meco—Modern Engineering Co., St. Louis, Mo.

RODS, PUMP, DEEP WELL.

Cook, A. D., Inc., Lawrenceburg, Ind.
Midland Mfg. Co., Fort Worth, Tex. "Boicourt."
Phosphor Bronze Smelting Co., The, Philadelphia, Pa.

RODS AND KEYS, SERVICE BOX.

Sanitary Company of America, Linfield, Pa.

RODS, SEWER CLEANING.

Coleman's Flexible Coil Wire—Allan J. Coleman, Chicago, Ill.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
E. Z.—Jacob Taiz & Son, Philadelphia, Pa.
Hause, Chas. F., Mfg. Co., Omaha, Neb.
National Tool Co., New York, N. Y.
Security (jointed)—The F. Bissell Co., Toledo, O.

RODS, STEEL WIRE.

Interstate Iron & Steel Co., Chicago, Ill.
Pittsburgh Tool Steel Wire Co., Pittsburgh, Pa.

RODS, STOVE.

Pheoll Mfg. Co., Chicago, Ill.
Superior—The Superior Screw & Mfg. Co., Cleveland, Ohio.

RODS, THREADED.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Buffalo Nipple & Machine Co., Inc., Buffalo, N. Y.
Pheoll Mfg. Co., Chicago, Ill.
St. Louis Screw Co., St. Louis, Mo.
Western Screw Products Co., **St. Louis, Mo.**

RODS, VALVE STEM.

Eagle Brand—Taunton-New Bedford Copper Co., Taunton, Mass.

RODS AND WIRE, WELDING.

(See "Wire, Welding")

ROLLERS, BOILER TUBE, LOCOMOTIVE

Federal—The Federal Machine & Welder Co., Warren, O.

ROLLERS, LUMBER, CAR DOOR.

Advance—Advance Car Mover Co., Inc., Appleton, Wis.
Lane Mfg. Co., Montpelier, Vt.
Leach Company, The, Oshkosh, Wis.

ROLLERS, PIPE.

Peco—Pittsburgh Engineering Co., Jeannette, Pa.
Walworth Company, Boston, Mass.

ROLLERS, ROAD.

Acme Road Machinery, Frankfort, N. Y.
Arnold—Arnold's, G. W., Son., Ionia, Mich.
Davis & Farnum Mfg. Co., Waltham, Mass.
Galion Iron Works & Mfg. Co., Galion, O.
Iroquois—The Barber Asphalt Co., Philadelphia, Pa.
Monarch—Good Roads Machinery Co., Kennett Square, Pa.
Vulcan Iron Works, Chicago, Ill.

ROLLS, ANGLE IRON

Whitney—Whitney Metal Tool Co., Rockford, Ill.

ROLLS, BENDING AND STRAIGHTENING.

Badger State Machine Works, Beloit, Wis.
Bertsch & Co., Cambridge City, Ind.
Bethlehem Steel Co., Bethlehem, Pa.
Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa
Champion Blower & Forge Co., The, Lancaster, Pa. (Trade names—Century, Columbian, Eureka, New Patent.)
Cleveland Punch & Shear Works Co., Cleveland, O.
Covington Machine Co., Covington, Va.
Hendley & Whittemore Co., Beloit, Wis.
Hilles & Jones—Consolidated Machine Tool Corp. of America, New York, N. Y.
McCabe, J. J., Lathe & Machy. Corp., New York, N. Y.
Morgan Engineering Co., Alliance, O.
National Roll & Foundry Co., Avonmore, Pa.
New Doty Mfg. Co., Janesville, Wis.
Niles-Bement-Pond Co., New York City.
Perkins Machine Co., Warren, Mass.
Pulaski Foundry & Mfg. Corp., Pulaski, Va.
Rock River Machine Co., Janesville, Wis
Southwark Foundry & Machine Co., Philadelphia, Pa.
Thomas Spacing Machine Co., Pittsburgh, Pa.
United Engineering & Fdy. Co., Pittsburgh, Pa.
Weller Mfg. Co., Chicago, Ill.
Williams, White & Co., Moline, Ill.

ROLLS, CURVING AND CORRUGATING.

Badger—Rock River Machine Co., Janesville, Wis.
Canton Foundry & Machine Co., Canton, O.
Niagara Machine & Tool Works, Buffalo, N. Y.
Ohl & Co., Geo. A., Newark, N. J.
Quickwork—The Quickwork Mfg. Co., St. Marys, O.
Stamco—Streine Tool & Mfg. Co., New Bremen, O.
Toledo Machine & Tool Co., The, Toledo, O.

ROLLS, FEED.

Atkins-Coleman—E. C. Atkins & Co., Indianapolis, Ind.

ROLLS, PIPE HANGER.

Beaton & Cadwell Mfg. Co., New Britain, Conn.
Bemanco—M. S. Little Mfg. Co., Hartford, Conn.
Newbury Mfg. Co., Monroe, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, O.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Walworth Company, Boston, Mass.

ROPE DRIVES, TRANSMISSION.

(See also "Sheaves.")

Caldwell, H. W., & Son Co., Chicago, Ill.
Columbian—Columbian Rope Co., Auburn, N. Y
Dodge Mfg. Corp., Mishawaka, Ind.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Kent Machine Co., Kent, O.
Link-Belt Company, Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
Weller Mfg. Co., Chicago, Ill.
Wolf Co., The, Chambersburg, Pa.
Wood, T. B., Sons Company, Chambersburg, Pa.

ROPE, COTTON.

Hoffman-Corr Mfg. Co., Philadelphia, Pa.
Lambeth Rope Corp., New Bedford, Mass.
Quaker—The Quaker City Cordage Co., Philadelphia, Pa.
Winne, Frank W., & Sons, Inc., Philadelphia, Pa.

ROPE, JUTE.

American Mills Co., The, Atlanta, Ga.
American—The American Mfg. Co., Brooklyn, N. Y.
Fischer & Hayes Rope & Steel Co., Chicago, Ill.
Quaker—The Quaker City Cordage Co., Philadelphia, Pa.
Winne, Frank W., & Son, Inc., Philadelphia, Pa.

ROPE, MANILA.

Ajax Rohe Co., New York, N. Y.
American Wire & Cable Co., Inc., The, New York, N. Y.
American Mills Co., Atlanta, Ga.
American—The American Mfg. Co., Brooklyn, N. Y.
Badger—John Rauschenberger Co., Milwaukee, Wis.
Blue Ribbon—The Jobbers Mfg. Co., Chicago, Ill.
Columbian Tape Marked, Eureka—Columbian Rope Co., Auburn, N. Y.
Fischer & Hayes Rope & Steel Co., Chicago, Ill.
Fitler Co., The Edwin H., Philadelphia, Pa. (hoisting).
Firmus Blue Strand—Dodge Mfg. Corp., Mishawaka, Ind.
Hoffmann-Corr Mfg. Co., New York, N. Y.
H. & A., Blue Heart—Hooven & Allison Co., Xenia, O
New York Cordage Co., The, New York, N. Y. "Nycord."
Peerless—Waterbury Co., New York, N. Y.
Rakco—R. A. Kelly Co., Xenia, O.
Red Heart—The Hooven & Allison Co., Xenia, O.
Rugg, E. T., & Co., Newark, Ohio. Trade names—Ocean Brand, Marine, Champion.
Stevedore—C. W. Hunt Co., Inc., West New Brighton, N. Y.
Wall—Wall Rope Works, New York, N. Y.
Weller Mfg. Co., Chicago, Ill.
Whitlock—Whitlock Cordage Co., New York, N. Y.
Winne, Frank W., & Son, Inc., Philadelphia, Pa.

ROPE, MARLIN COVERED.

Durable—Durable Wire Rope Co., Boston, Mass.
Fischer & Hayes Rope & Steel Co., Chicago, Ill.
Nycord—The New York Cordage Co., New York, N. Y.
Peerless—Waterbury Co., New York, N. Y.

ROPE, RAWHIDE.

Chicago Rawhide Mfg. Co., The, Chicago, Ill.
Schieren's—Chas. A. Schieren Co., New York.

ROPE, SISAL.

American Mills Co., Atlanta, Ga.
American—The American Mfg. Co., Brooklyn, N. Y.
American Wire & Cable Co., Inc., The, New York, N. Y.
Badger—John Rauschenberger Co., Milwaukee, Wis.
Columbian, Eureka—Columbian Rope Co., Auburn, N. Y.
Fischer & Hayes Rope & Steel Co., Chicago, Ill.
Fitler, Edwin H., Co., The, Philadelphia, Pa.
New York Cordage Co., The, New York. "Nycord."
Red Heart—The Hooven & Allison Co., Xenia, Ohio.
Rakco—R. A. Kelly, Co., Xenia, O.
Rugg, E. T., & Co., Newark, Ohio. "Ocean," "Champion."
Weller Mfg. Co., Chicago, Ill.
Whitlock—Whitlock Cordage Co., New York, N. Y.
Winne, Frank W., & Son, Inc., Philadelphia, Pa.

ROPE, TRANSMISSION.

(See "Rope, Manilla" and "Rope, Wire.")

ROPE, WIRE.

Atlas—Fischer & Hayes Rope & Steel Co., Chicago, Ill.
American—American Steel & Wire Co., Chicago, Ill.
American Cable Co., Inc., The, New York, N. Y. (Trade names—Crescent, Tru Lay.)
American Wire & Cable Co., Inc., The, New York, N. Y.
Blue Ribbon—The Jobbers Mfg. Co., Chicago, Ill.
Broderick & Bascom Rope Co., St. Louis, Mo. (Trade names—Patentsteel, Powersteel, Yellow Strand.)
Durable Wire Rope Co., Boston, Mass.
Hazard Mfg. Co., Wilkes Barre, Pa. "Olympic."
Hercules—A. Leschen & Sons Rope Co., St. Louis, Mo. (Red-Strand.)
Macwhyte Company, Kenosha, Wis. (Trade names—Macwhyte, Kilindo Patent, Monarch, Non-Rotating, Whyte Strand, Wycore.)
Leach Co., The, Oshkosh, Wis.
Peerless—Waterbury Co., New York, N. Y.
Phosphor Bronze Smelting Co., The, Philadelphia, Pa.
Roebling, Blue Center—John A. Roebling's Sons Co., Trenton, N. J.
Star—U. T. Hungerford Brass & Copper Co., New York, N. Y. (Bronze).
Telfax—Williamsport Wire Rope Co., Williamsport, Pa.
Union Wire Rope Co., Kansas City, Mo.
Wickwire-Spencer Steel Corp., New York, N. Y.

ROPES, TOW.

Basline Autowline, Powersteel Truckline—Broderick & Bascom Rope Co., St. Louis, Mo.
Fischer & Hayes Rope & Steel Co., Chicago, Ill.

ROUNDERS OR JOINTERS, SAW GUIDE.

Atkins—E. C. Atkins & Co., Indianapolis, Ind.

ROUTERS, PORTABLE ELECTRIC.

Cincinnati Electrical Tool Co., The, Cincinnati, Ohio.
Rogers, F. L., & Co., Chicago, Ill. "Wodack."

ROUTERS, SAW.

Hill-Curtis Co., Kalamazoo, Mich.
Kelley Electric Machine Co., Buffalo, N. Y.
Tannewitz Works, The, Grand Rapids, Mich.

RUBBERS, SEAT HINGE.

Canfield Rubber Co., Bridgeport, Conn.
Canfield, H. O., Co., The, Bridgeport, Conn.

RUBBERS, WELL PACKER.

Cincinnati Rubber Mfg. Co., The, Cincinnati, O.
Diamond Rubber Co., The, Akron, O.
Gutta Percha & Rubber Mfg. Co., New York.
Hudson Mechanical Rubber Co., New York, N. Y.
Larkin Packer Co., St. Louis, Mo.
Masseth—Masseth Packer & Machine Co., Butler, Pa.
New York Belting & Packing Co., New York.
Republic Rubber Co., The, Youngstown, O.

RULES, FOLDING.

Bernz Co., Otto, Newark, N. J.
Flexifold, Nearsite—The Chapin-Stephens Co., Pine Meadow, Conn.
Lufkin Rule Co., Saginaw, Mich.
Master Rule Mfg. Co., Inc., New York, N. Y.
Rustless Rule Co., The (aluminum), Buffalo, N. Y. "Rustless," "Zig-Zag."
Starrett Co., The L. S., Athol, Mass.
Victor—Stanley Rule & Level Co., New Britain, Conn

RULES, SCREW MACHINE, WITH HOLDER.

Brown & Sharp Mfg. Co., Providence, R. I.

RULES, SLIDE.

Interlox—Master Rule Mfg. Co., Inc., New York, N. Y.
Starrett, L. S., Co., The, Athol, Mass.

RULES, SPRING.

Farrand, Hiram A., Berlin, N. H.

RULES, STEEL.

Almond—T. R. Almond Mfg. Co., Ashburnham, Mass.
Athol Machine Co., Athol, Mass.
Billings & Spencer Co., Hartford, Conn.
Brown & Sharpe Mfg. Co., Providence, R. I.
Columbia Caliper Co., Marietta, Pa.
Dill, T. C., Machine Co., Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Keuffel & Esser Co., New York, N. Y.
Lufkin Rule Co., Saginaw, Mich.
Peck, Stow & Wilcox Co., The, Southington, Conn.
Poliakoff's Universal—R. Poliakoff, New York, N. Y.
Slocomb, J. T., Co., Providence, R. I.
Starrett Co., The L. S., Athol, Mass.
Union Tool Co., Orange, Mass.

RUNNERS, CALKED JOINT.

Bernz Co., Otto, Newark, N. J.
Brapaco—Braiding & Packing Works of America, Brooklyn, N. Y.
Johnson, Wm., Firm of, Newark, N. J.
Lord—The C. H. Yonts Co., Meadville, Pa.
Superior Plumbing Specialty Co., New York, N. Y.
Vanderman's—The Vanderman Mfg. Co., Willimantic, Conn.
Wilkins Imp.—Geo. H. Wilkins Co., Chicago, Ill.

RUST PREVENTIVE, REMOVERS, ETC.

American—American Oil Corp., Jackson, Mich.
Corol Anti-Rust—Simons Mfg. Co., Chicago, Ill.
Frasse, Peter A., Inc., New York, N. Y.
Houghton & Co., E. F., Philadelphia, Pa.
Imperial—The Martindale Electric Co., Cleveland, O.
Kant Rust Products Co., Rahway, N. J.
Lukens Steel Co., Coatesville, Pa.
Metaline Chemical Co., Cleveland, O. "Metaline."
Meno—Peter A. Frasse & Co., Inc., New York, N. Y.
No-Ox-Id—Dearborn Chemical Co., Chicago, Ill.
North Star Chemical Works, Inc., Lawrence, Mass.
Oakite—Oakley Chemical Co., New York, N. Y.
Parker Process—Parker Rust-Proof Co., Detroit, Mich.
Protection Products, Inc., Kalamazoo, Mich. "Protection."
Rus-Go—Babbitt Steam Specialty Co., New Bedford, Mass.
Rust Eater—Kemoshyne Products Co., Inc., New York, N. Y.
Rust-i-Cide Company, The, Cleveland, O.
Rustsolvo—Rust Products Co. of America, The, Chicago, Ill.
Tasgon—Polygon Products Co., Boston, Mass.
W. J. 16—No Rad Rust Corp., Lancaster, Pa. (for heating boilers).
Whiz—The R. M. Hollingshead Co., Camden, N. J.
"X"—X Laboratories, New York, N. Y.

SADDLES AND CLAMPS, PIPE.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
Carpenter & Peterson, Boston, Mass.
Central Foundry Co., New York, N. Y.
C.—Crane Co., Chicago, Ill.
Dayton—The Dayton Pipe Coupling Co., Dayton, O.
Dresser, S. R., Mfg. Co., Bradford, Pa.
Gulf States Pipe Corp., Anniston, Ala.
F. & M.—Fee & Mason Mfg. Co., New York, N. Y.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa. (adjustable).
Hauer, J. B., Inc., Watertown, N. Y.
Illinois Malleable Iron Co., Chicago, Ill. "Imico."
Mueller Co., Decatur, Ill.
Newbury, Jay H., & Son, Goshen, N. Y.
Newbury Mfg. Co., Monroe, N. Y.
Oil Well Supply Co., Pittsburgh, Pa.
Perfection—Worcester Brush & Scraper Co., Worcester, Mass.
Pittsburgh Valve & Fittings Co., Barberton, O.
Saaco (adjustable)—Sanitary Company of America, Linfield, Pa.
Skinner—M. B. Skinner Co., Chicago, Ill.
Square Gee—Grabler Mfg. Co., Cleveland, O.
Standard Iron Works, Inc., New York, N. Y.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.
Walworth Company, Boston, Mass.

SAL-AMMONIAC, FOR CLEANING SOLDERING IRONS.

Speco—Special Chemicals Co., Highland Park, Ill.

SALAMANDERS.

Aeroil—Aeroil Burner Co., Inc., Union Hill, N. J.
Akron—Akron Barrow Co., Cleveland, O.
Biehl Iron Works, Inc., The, Reading, Pa.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
General Wheelbarrow Company, Cleveland, Ohio (formerly Akron Barrow Company).
Hauck Mfg. Co., Brooklyn, N. Y.
Pa.
Indiana Foundry Co., Indiana, Pa.
Littleford Bros., Cincinnati, O.
Munroe & Sons Mfg. Corp., R., Pittsburgh, Pa.
Smith—Matthews Foundry Co., Detroit, Mich.

SALTS, SOLDERING (FOR ALL METALS).

Allen, L. B., Co., Inc., Chicago, Ill.
Amco—American Solder & Flux Co., Philadelphia.
Boyer Chemical Laboratory Co., The, Chicago, Ill.
Burnley—Burnley Battery & Mfg. Co., North East, Pa.
Highland—Highland Electro-Chemical Mfg. Co., Connellsville, Pa.
Nokorode—The M. W. Dunton Co., Providence, R. I.

Norwesco—The Northwestern Chemical Co., Marietta, O.
Speco—Special Chemicals Co., Highland Park, Ill.
Yager's—Alex R. Benson Co., Inc., Hudson, N. Y.

SAND DRYERS OR DRYING STOVES.

Hauck—Hauck Mfg. Co., Brooklyn, N. Y.
Punxsutawney Foundry & Machine Co., Punxsutawney, Pa.
Sutton—Indiana Foundry Co., Indiana, Pa.
Zelnicker—Walter A. Zelnicker Supply Co., St. Louis, Mo.

SAND BLAST MACHINES AND EQUIPMENT.

American Foundry Equipment Co., New York, N. Y.
Buckeye—The Macleod Co., Cincinnati, O.
Busch, J. C., Co., Milwaukee, Wis.
Coates Clipper Mfg. Co., Worcester, Mass.
Curtis & Co. Mfg. Co., St. Louis, Mo.
Cyclone Suction—W. F. Stodder, Syracuse, N. Y.
Hoevel—Hoevel Mfg. Corp., New York.
Injector—J. M. Betton, Jersey City, N. J.
Koven, L. O., & Bros., Jersey City, N. J.
Leiman Bros., New York, N. Y.
Mott Sand Blast Mfg. Co., Chicago, Ill.
Multiblasters—George M. Stowe, Jr., Buffalo, N. Y.
New Haven Sand Blast Co., The, New Haven, Conn.
Niagara—Geo. M. Stowe, Jr., Buffalo, N. Y.
Obermayer Co., S., Cincinnati, O.
Paxson-Warren—Paxson Co., J. W., Philadelphia, Pa.
Ruenelin Mfg. Co., Minneapolis, Minn. "Midget & Giant."
Sly—The W. W. Sly Mfg. Co., Cleveland, O.
Tilghman-Brooksbank Sand Blast Co., Philadelphia, Pa.

SAWING OUTFITS, CORDWOOD.

American Saw Mill Mach'y Co., Hackettstown, N. J.
Appleton Mfg. Co., Batavia, Ill.
Atkins Silver Steel—E. C. Atkins & Co., Indianapolis, Ind.
Badger Gas & Gasoline Engine Co., Kansas City, Kans.
Baker Mfg. Co., Evansville, Wis.
Duplex Mfg. Co., Superior, Wis.
Frick Co., Waynesboro, Pa.
Hill-Curtis Co., Kalamazoo, Mich.
Hooker Mfg. Corp., St. Johnsbury, Vt.
Knight Mfg. Co., Canton, O.
Lindahl, Henry, Machine Co., Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Moak Machine & Tool Co., Port Huron, Mich.
Monitor—Baker Mfg. Co., Evansville, Wis.
New Holland Machine Co., New Holland, Pa.
Orangeville Mfg. Co., Orangeville, Pa.
Russell & Co., The, Massillon, O.
Shirk—P. E. Shirk, Blue Ball, Pa.
United Engine Co., Lansing, Mich.
Wheland Company, The, Chattanooga, Tenn.
Witte—Witte Engine Works, Kansas City, Mo.

SAW MILLS (AND SAW RIGS), PORTABLE

Adams, W. T., Machine Co., Corinth, Mass.
American Saw Mill Machinery Co., Hackettstown, N. J.
Bartley—Wm. Bartley & Sons, Bartley, N. J.
C. H. & E. Manufacturing Co., Inc., Milwaukee, Wis.
Chase Turbine Mfg. Co., Orange, Mass.
Economy—Northwestern Steel & Iron Works, Eau Claire, Wis.
Enterprise—Enterprise Co., The, Columbiana, O.
Farquhar—A. B. Farquhar Co., Ltd., York, Pa.
Hill-Curtis Co., Kalamazoo, Mich.
Sinker-Davis Co., The, Indianapolis, Ind. (band and circular). "Hoosier."
Lane Mfg. Co., Montpelier, Vt.
Leach Company, The, Oshkosh, Wis.
Monarch—American Scale Co., Kansas City, Mo.
Parks Ball Bearing Machinery Co., Cincinnati, O.
Siddall—Sumter Machinery Co., Sumter, S. C.
Standard Saw Mill Machinery Co., Erie, Pa.
Star—Flint & Walling Mfg. Co., Kendallville, Ind.
United States Machine Co., Williamsport, Pa.
Vance, J. A., Co., Winston-Salem, N. C.
Wallace—Wallace, J. D., & Co., Chicago, Ill.
Wheland Company, The, Chattanooga, Tenn.
Witte—Witte Engine Works, Kansas City, Mo.

SAWS, BACK.

Atkins—E. C. Atkins & Co., Indianapolis, Ind.
Crescent Co., Inc., The, Meriden, Conn.
Disston, Henry, & Sons, Inc., Philadelphia, Pa.
Greyhound, Bishop—Geo. H. Bishop & Co., Lawrenceburg, Ind.
Jennings, C. E., & Co., New York, N. Y.
Moore Bros., Jamestown, N. Y.
Napier Saw Works, Inc., Middletown, N. Y.
Rockford Mitre Box Co., Rockford, Ill.
Simonds Saw & Steel Co., Fitchburg, Mass.

SAWS, BAND (MACHINES).

(See "Machines, Band Saw.")

SAWS, BAND, METAL CUTTING (BLADES).

Barnes, W. O., Co., Detroit, Mich.
Disston & Sons Co., Henry, Philadelphia, Pa.
Griffiths, Alb., Saw Co., Boston, Mass.
Jesseph Saw & Tool Works, Detroit, Mich. (Swedish steel).
Lenox—American Saw & Mfg. Co., Springfield, Mass.
Napier—Metal Saw & Machine Co., Inc., Springfield, Mass.
Nickel Steel—Swett, Frank W., & Son, Chicago, Ill.
Ohlen-Bishop Co., The, Columbus, O.
Paramount—J. D. Burrill & Son, Ilion, N. Y. (plain and bevel back).
Racine—Racine Tool & Machine Co., Racine, Wis.
Ronan—Ronan Saw & Tool Works, Buffalo, N. Y.
Silver Steel—E. C. Atkins & Co., Indianapolis, Ind.
Sinker-Davis Co., Indianapolis, Ind.
Thompson, Henry G., & Son Co., The, New Haven, Conn. (Also jig and magazine coils.)
Wizard—Bay State Saw & Tool Mfg. Co., Inc., Winchester, Mass.

SAWS, BAND, NARROW.

Barnes, W. O., Co., Detroit, Mich.
Edge, Frank, & Co., Grand Rapids, Mich.
Hoe—R. Hoe & Co., New York.
Silver Steel—E. C. Atkins & Co., Indianapolis, Ind.
Simonds Saw & Steel Co., Fitchburg, Mass.

SAWS, BAND, WOODCUTTING (BLADES).

Aero Works, Inc., New York, N. Y. "Aero."
American Saw Mill Machinery Co., Hackettstown, N. J.
American Saw & Mfg. Co., Springfield, Mass. "Lenox."
American Saw & Tool Works, Chicago, Ill.
Anderson, W. H., Tool & Supply Co., Detroit, Mich.
Atkins Silver Steel—E. C. Atkins & Co., Indianapolis, Ind.
Black Diamond Saw & Machine Works, Natick, Mass. "Black Diamond."
Barnes, W. O., Co., Detroit, Mich.
Clarkes Saw & Machine Works, Newark, N. J.
Crescent Machine Co., Leetonia, O.
Disston, Henry, & Sons, Inc., Philadelphia, Pa.
Edge & Co., Frank, Grand Rapids, Mich. (Blades only.)
Fowle, John L., Woburn, Mass.
Griffiths, Albert, Saw Co., The, Boston, Mass.
Holcomb, A. L., Co., Grand Rapids, Mich.
Hoosier—Sinker-Davis Co., Indianapolis, Ind.
Huther Bros. Saw Mfg. Co., Inc., Rochester, N. Y. "Huther."
Lippert, E. T., Saw Co., Pittsburgh, Pa.
McNiece, William & Son, Philadelphia, Pa.
Napier Saw Works, Inc., Middletown, N. Y.
Napier—Metal Saw & Machine Co., Springfield, Mass
Nickel Steel—Swett, Frank W., & Son, Chicago, Ill.
Ohlen-Bishop Co., The, Columbus, O.
Paramount—J. D. Burrill & Son, Ilion, N. Y.
Quinn, Wm. E., Company, Northampton, Mass.
Racine—Racine Tool & Machine Co., Racine, Wis.
Simonds Saw & Steel Co., Fitchburg, Mass.
Southern Saw Works, Atlanta, Ga.
Star Machinery Co., Seattle, Wash.
Thompson, Henry G., & Son Co., The, New Haven, Conn. "Eureka."
Toledo Saw & Supply Co., The, Toledo, O.
Wallace, J. D., & Co., Chicago, Ill.
Woodworkers Tool Works, Chicago, Ill.
Zeiller & Nagel, Brooklyn, N. Y.

SAWS, BARREL, EDGER AND HEADING.

Atkins—E. C. Atkins & Co., Indianapolis, Ind.

SAWS, BENCH.

Bates Motorcraft Co., Chicago, Ill. (band, cross-cut, miter, rip and scroll).
H. & A.—Heston & Anderson, Fairfield, Iowa. (band, rip, rip and crosscut and swing).
Pophal Manufacturing Co., Wausau, Wis. "Woodcraft."
Wallace—J. D. Wallace & Co., Chicago, Ill. (band and circular).

SAWS, BUCK.

Atkins—E. C. Atkins & Co., Indianapolis, Ind.
Cleveland Machinery Co., Cleveland, Tenn. (frames only).
Disston, Henry, & Sons Co., Philadelphia, Pa.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Moore Bros., Jamestown, N. Y.
New Holland—New Holland Machine Co., New Holland, Pa.
Ohlen-Bishop Co., The, Columbus, O.

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SAWS, CIRCULAR, CHISEL TOOTH.
(See also "Saws, Circular, Woodcutting.")

Atkins—E. C. Atkins & Co., Indianapolis, Ind.
Hoe, R., & Co., Inc., New York.
Hunter, Duplex—Hunter Saw & Machine Co., Pittsburgh, Pa.
Huther Bros. Saw Mfg. Co., Inc., Rochester, N. Y.
Quinn, Wm. E., Co., Northampton, Mass. (Wood cutting.)
Southern—Southern Saw Works, Atlanta, Ga.
Wallace—J. D. Wallace Co., Chicago, Ill.

SAWS, CIRCULAR, COLD METAL CUTTING, HOT METAL CUTTING.

Ajax Mfg. Co., Cleveland, O.
American Saw & Tool Works, Chicago, Ill.
Atkins—E. C. Atkins & Co., Indianapolis, Ind.
Beskut—Hunter Saw & Machine Co., Pittsburgh, Pa.
Burr—John T. Burr & Sons, Brooklyn, N. Y.
Cochrane-Bly Company, Rochester, N. Y.
Disston, Henry, & Sons, Inc., Philadelphia, Pa.
Earle Gear & Machine Co., Philadelphia, Pa. "Lea Simplex."
Goodell-Pratt Co., Greenfield, Mass.
Griffiths, Albert, Saw Co., The, Boston, Mass.
Hoe, R., & Co., Inc., New York, N. Y.
Huther Bros. Saw Mfg. Co., Rochester, N. Y. "Semhi."
Knowlton—Knowlton Machine Co., Westbrook, Me.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Mackintosh Hemphill & Co., Pittsburgh, Pa.
Mesta Machine Co., Pittsburgh, Pa. "Mesta."
Moltrup Steel Products Co., Beaver Falls, Pa.
Ohlen-Bishop Co., The, Columbus, O.
Quality Saw & Tool Works, Springfield, Mass.
Robson Mfg. Co., Galesburg, Ill.
Simonds Saw & Steel Co., Fitchburg, Mass.
Sinker-Davis Co., Indianapolis, Ind.
Southern Saw Works, Atlanta, Ga.
Taylor-Newbold—Tabor Mfg. Co., Philadelphia, Pa.
Tindel-Morris Co., Eddystone, Pa. (Inserted teeth.)
Tindel & Phillips, Philadelphia, Pa.
Thurco—Thurston Mfg. Co., Providence, R. I.

SAWS, CIRCULAR, MITRE.

Atkins—E. C. Atkins & Co., Indianapolis, Ind.
Disston & Sons Co., Henry, Philadelphia, Pa.
Hoe, R., & Co., Inc., New York, N. Y.
Huther—Huther Bros. Saw Mfg. Co., Rochester, N. Y.
Southern Saw Works, Atlanta, Ga.
Tannewitz Works, The, Grand Rapids, Mich.

SAWS, CIRCULAR, WOODCUTTING
(See also "Tables, Saw.")

Aero Works, Inc., New York City.
American—American Saw Mill Machinery Co., Hackettstown, N. J.
American Saw & Tool Works, Chicago, Ill.
Appleton Mfg. Co., Batavia, Ill.
Atkins Silver Steel—E. C. Atkins & Co., Indianapolis Ind.
Blue Ball Machine Works, Blue Ball, Pa.
Canton Saw Co., Canton, O.
Chattanooga Saw Works, The, Chattanooga, Tenn.
Clarkes Saw & Machine Works, Newark, N. J.
Curtis—Curtis Saw Co., St. Louis, Mo.
Disston & Sons, Inc., Henry, Philadelphia, Pa.
Duplex—Huther Bros. Saw Mfg. Co., Rochester, N. Y.
Eagle—Eagle Saw Works, Chattanooga, Tenn.
Goodell-Pratt Co., Greenfield, Mass.
Griffiths, Albert, Saw Co., The, Boston, Mass.
Hill-Curtis Co., Kalamazoo, Mich.
Hoe, R., & Co., Inc., New York, N. Y.
Hunter Saw & Machine Co., Pittsburgh, Pa.
Knight Mfg. Co., The, Canton, O.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Miner, J. H., Saw Mfg. Co., Meridian, Miss.
Moltrup Steel Products Co., Beaver Falls, Pa.
Moore Bros., Jamestown, N. Y.
Napier—Metal Saw & Machine Works, Springfield, Mass.
Newman Machine Co., Greensboro, N. C.
Ohlen-Bishop Co., The, Columbus, O.
Penfield Saw Works, The, Bristol, Conn.
Quinn, Wm. E., Company, Northampton, Mass.
Simonds Saw & Steel Co., Fitchburg, Mass.
Southern—Southern Saw Works, Atlanta, Ga.
Toledo Saw & Supply Co., The, Toledo, O.
Wallace, J. D., & Co., Chicago, Ill. (bench).
Woodworkers Tool Works, Chicago, Ill.
Zeiller & Nagel, Brooklyn, N. Y.

SAWS, COMPASS AND KEYHOLE.

Atkins—E. C. Atkins & Co., Indianapolis, Ind.
Crescent—Crescent Co., Inc., The, Meriden, Conn.
Disston & Sons Co., Henry, Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Greyhound, Bishop—Geo. H. Bishop & Co., Lawrenceburg, Ind.
Jennings, C. E., & Co., New York, N. Y.
Moore Bros., Jamestown, N. Y.
Ohlen-Bishop Co., The, Columbus, O.

SAWS, CONCAVE.

Atkins—E. C. Atkins & Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Philadelphia, Pa.
Hoe, R., & Co., Inc., New York, N. Y.
Huther Bros., Saw Mfg. Co., Inc., Rochester, N. Y. "Huther."
Lippert, E. T., Saw Co., Pittsburgh, Pa.

SAWS, COPING.

Atkins—E. C. Atkins & Co., Indianapolis, Ind.
Crescent—Crescent Co., Inc., The, Meriden, Conn.
Dikeman Mfg. Co., Norwalk, Conn.
Disston & Sons Co., Henry, Philadelphia, Pa.
Favorite, Leadall—Bridgeport Hardware Mfg. Corp., Bridgeport, Conn.
Gray, D. W., Co., Inc., New York, N. Y.
Griffin—G. W. Griffin Co., Franklin, N. H.
Jennings, C. E., & Co., New York, N. Y.
Maxson, F. P., Chicago, Ill. "F. P. M."
Millers Falls Co., Millers Falls, Mass.
Moore Bros., Jamestown, N. Y.
Napier—Metal Saw & Machine Co., Inc., Springfield, Mass.
Ohlen-Bishop Co., The, Columbus, O.
Red Devil—Smith & Hemenway Co., Inc., Irvington, N. J.
Wizard—Bay State Saw & Tool Mfg. Co., Inc., Winchester, Mass.

SAWS, CROSSCUT.

Atkins Silver Steel—E. C. Atkins & Co., Indianapolis, Ind.
Beaver—Hutchinson Mfg. Co., Norristown, Pa.
Curtis & Co., Mfg. Co., St. Louis, Mo.
Disston & Sons, Inc., Henry, Philadelphia, Pa.
Greyhound, Bishop—Geo. H. Bishop & Co., Lawrenceburg, Ind.
Hill-Curtis Co., Kalamazoo, Mich.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Moore Bros., Jamestown, N. Y.
Ohlen-Bishop Co., The, Columbus, O.
Simonds Saw & Steel Co., Fitchburg, Mass.

SAWS, CUT-OFF, ROTARY.

Burke—Burke Machine Tool Co., Conneaut, O.

SAWS, CUT-OFF, TABLE.

Crescent—The Crescent Machine Co., Leetonia, O. (woodworking.)
Holmes, E. & B., Machinery Co., Buffalo, N. Y. (woodworking).
Jenkins Machine Co., Sheboygan, Wis. (woodworking).
Wheland Company, The, Chattanooga, Tenn. (woodworking).
New Hoosier—The Sinker-Davis Co., Indianapolis, Ind. (woodworking).

SAWS, DRAG.

American—American Saw Mill Mach'y Co., Hackettstown, N. J.
Atkins, E. C., & Co., Indianapolis, Ind.
Curtis Saw Co., St. Louis, Mo.
Disston & Sons, Inc., Henry, Philadelphia, Pa.
Henderson Iron Works & Supply Co., Ltd., W. K., Shreveport, La.
Hero—Appleton Mfg. Co., Batavia, Ill.
Hill-Curtis Co., Kalamazoo, Mich.
Ireland—Ireland Machine & Fdy Co., Norwich, N. Y.
Lane Mfg. Co., Montpelier, Vt.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Moore Bros., Jamestown, N. Y.

ATKINS

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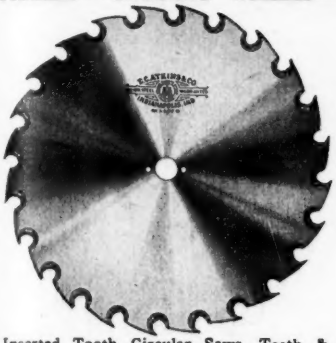
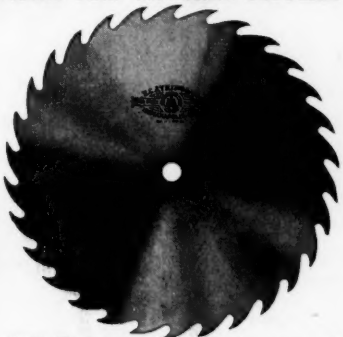
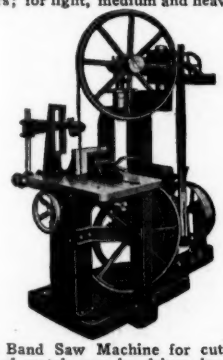


Inserted Tooth Circular Saws, Teeth & Holders; for light, medium and heavy mills.

Band Saws, Narrow and Wide, made from "Silver Steel" in widths of ⅛ in. to 18 in.



Solid Tooth Circular Saws for saw and planing mills, woodworking and furniture factories.



Metal Band Saw Machine for cutting all kinds of metal; can be driven by belt or motor; capacity any size up to 12 in. by 14 in.

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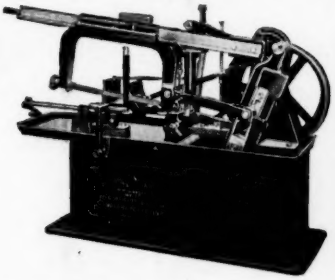

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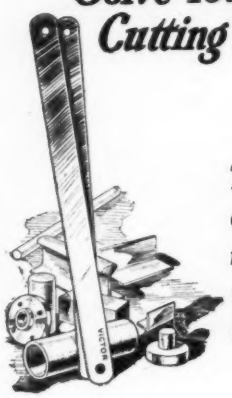

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Wheland—The Wheland Co., Chattanooga, Tenn.
Scarbrough Mfg. Co., Chattanooga, Tenn. "De Loach," "Scarbrough."

SAWS, ELECTRIC, PORTABLE & STATIONARY.

H. & A.—Heston & Anderson, Fairfield, Iowa.
Jones Superior Machine Co., Chicago, Ill.
Neil & Smith Electric Tool Co., The, Cincinnati, O. "Ideal."
Silver—The Silver Mfg. Co., Salem, O. (portable).

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B-X—The B-X Saw Co., Boston, Mass.

SAWS, FRICTION.

Morgan Engineering Co., Alliance, Ohio.

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Atkins, E. C., & Co., Indianapolis, Ind.
Curtis & Co. Mfg. Co., St. Louis, Mo.
Disston, Henry, & Sons, Inc., Philadelphia, Pa.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Ohlen—Ohlen-Bishop Co., The, Columbus, O.
Simonds Saw & Steel Co., Fitchburg, Mass.
United States Machine Co., Williamsport, Pa.

SAWS, GROOVING.

Atkins—E. C. Atkins & Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Philadelphia, Pa.
Griffiths, Albert, Saw Co., The, Boston, Mass.
Hoe, R., & Co., Inc., New York, N. Y.
Huther Bros. Saw Mfg. Co., Inc., Rochester, N. Y. "Semhi."
Lamson Cutter-Head Co., Chicago, Ill.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Ohlen-Bishop Co., The, Columbus, O.
Simonds Saw & Steel Co., Fitchburg, Mass.
Southern—Southern Saw Works, Atlanta, Ga.

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Bay State Saw & Tool Mfg. Co., Inc., Winchester, Mass. "Equal," "Wizard."
Clemson Bros., Inc., Middletown, N. Y. "Star."
Diamond Saw & Stamping Works, Buffalo, N. Y. "Sterling."
Disston, Henry, & Sons, Inc., Philadelphia, Pa. "Improved Chromol."
Goodell-Pratt Co., Greenfield, Mass.
Griffin, G. W., Co., Franklin, N. H. "Griffin."
Miller Falls Co., Millers Falls, Mass. "Millers Falls," "Universal."
Napier Saw Works, Inc., Middletown, N. Y. "Expert," "Quality."
Ronan Saw & Tool Works, Buffalo, N. Y. "Rex," "Ronan."
Simonds Saw & Steel Co., Fitchburg, Mass. "Culley," "Simonds."
Spartan Saw Works, Springfield, Mass.
Standard Saw & Tool Mfg. Co., Inc., Boston, Mass. "Hygrade."
Starrett, L. S., Co., The, Athol, Mass. "Starrett."
Thompson, Henry G., & Son Co., New Haven, Conn. "Mil Flex" (flexible back), "Milford," "Midget Mil Flex."
Victor Saw Works, Inc., Middletown, N. Y. "Victor."

SAWS, HACK (MACHINE).

Armstrong-Blum Mfg. Co., Chicago, Ill. "Marvel."
Atkins Kwik Kut—E. C. Atkins & Co., Indianapolis, Ind.
Bernz Co., Otto, Newark, N. J.
Challenge—Western Tool & Mfg. Co., Springfield, O.
Champion Blower & Forge Co., Lancaster, Pa.
Champion—Western Tool & Mfg. Co., Springfield, O.
Economy—W. Robertson Machine & Foundry Co., Buffalo, N. Y.
Edlund Machinery Co., Inc., Cortland, N. Y. "Edlund."
Espen-Lucas Machine Works, Philadelphia, Pa.
Eureka—The Henry G. Thompson & Son Co., New Haven, Conn
Goodell-Pratt Co., Greenfield, Mass.
Griffin—G. W. Griffin Co., Franklin, N. H.
Jim Crow, Kalamazoo—Kalamazoo Railway Supply Co., Kalamazoo, Mich
Milford—The Henry G. Thompson & Son Co., New Haven, Conn.
M. S. W.—Victor Saw Works, Inc., Middletown, N. Y. (portable).
Myers Improved—Myers Machine Tool Corp., Columbia, Pa.
O. I. O.—The Oliver Instrument Co., Adrian, Mich.
Ohlen-Bishop Co., The, Columbus, O.
Olsen, Tinius, Testing Machine Co., Philadelphia, Pa.
Peerless Machine Co., Racine, Wis. "Peerless."
Pioneer—Louisville Electric Mfg. Co., Louisville, Ky.
Pond & Robinson, San Francisco, Calif.
Quality, Expert—Napier Saw Works, Middletown, N. Y.
Racine—Racine Tool & Machine Co., Racine, Wis.
Starrett, L. S., Co., The, Athol, Mass.
Sterling—Diamond Saw & Stamping Works, Buffalo N. Y.
Wizard—Bay State Saw & Tool Mfg. Co., Inc., Winchester, Mass.

SAWS, HACK, ROTARY.

Black & Decker Mfg. Co., Baltimore, Md.
Excelso—Excelso Specialty Works, Buffalo, N. Y.
Slack-Horner Brass Mfg. Co., The, Denver, Colo. "Lindgren."
Misener & Irving Co., Inc., Syracuse, N. Y. "Misener."

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Aero—Aero Works, Inc., New York, N. Y.
American Saw & Tool Works, Chicago, Ill.
Atkins—E. C. Atkins & Co., Indianapolis, Ind.
Crescent—Crescent Co., Inc., The, Meriden, Conn.
Disston & Sons, Inc., Henry, Philadelphia, Pa
Expert, Quality—Napier Saw Works, Inc., Middletown, N. Y.
Greyhound, Bishop—Geo. H. Bishop & Co., Lawrenceburg, Ind.
Jennings, C. E., & Co., New York, N. Y.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Moore Bros., Jamestown, N. Y.
Norvell-Shapleigh Hardware Co., St. Louis, Mo.
Ohlen-Bishop Co., The, Columbus, O.
Pexto—Peck, Stow & Wilcox Co., Southington, Conn.
Simmons Hardware Co., St. Louis, Mo. "Keen Kutter."
Henry G. Thompson & Son Co., The, New Haven, Conn.

SAWS, HAND, ELECTRIC.

Calkins-Cole Mfg. Co., The, Rockford, Ill.
Crowe Mfg. Corp., Cincinnati, O.
Electric Hand Saw Co., Seattle, Wash.
Esskay Mfg. Co., Chicago, Ill.
H. R. Irwin Mfg. Co., Cincinnati, Ohio.
Porter-Cable Machine Co., Syracuse, N. Y. "Kwicksaw."
Rogers, F. L., & Co., Chicago, Ill. "Wodack."
Skilsaw, Inc., Chicago, Ill.
Speedway—Electro-Magnetic Tool Co., Cicero, Ill.
Wallace, J. D., & Co., Chicago, Ill.
Wappat Gear Wks., Pittsburgh, Pa. "Alta."

SAWS, ICE.

Atkins, E. C., & Co., Indianapolis, Ind.
Curtis & Co. Mfg. Co., St. Louis, Mo.
Cushman—Cushman Motor Works, Lincoln, Neb.
Disston, Henry, & Sons, Inc., Philadelphia, Pa.
Greyhound, Bishop—Geo. H. Bishop & Co., Lawrenceburg, Ind.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Moore Bros., Jamestown, N. Y.
Ohlen-Bishop Co., The, Columbus, O.
Simonds Saw & Steel Co., Fitchburg, Mass.

SAWS, JIG.

Boice, William B., & John E., Toledo, Ohio.
Hill-Curtis Co., Kalamazoo, Mich.
Holcomb, A. L., Co., Grand Rapids, Mich.

SAWS, METAL SLITTING.

(See also "Cutters, Milling.")

Atkins—E. C. Atkins & Co., Indianapolis, Ind.
Barber-Colman Company, Rockford, Ill.
Brown & Sharpe Mfg. Co., Providence, R. I.
Circular Tool Co., Inc., Providence, R. I.
"Cowles Cutters"—Cowles Tool Co., Cleveland, Ohio.
Disston, Henry, & Sons, Inc., Philadelphia, Pa.
Moore & Moore, Inc., Reading, Pa.
Morse Twist Drill & Mach. Co., New Bedford, Mass.
Thurco—Thurston Mfg. Co., Providence, R. I.

SAWS, MILLING, METAL SLOTTING OR SCREW SLOTTING.

(See also "Cutters, Milling.")

Barber-Colman Co., Rockford, Ill.
Circular Tool Co., Inc., Providence, R. I.
Disston, Henry, & Sons, Inc., Philadelphia, Pa.
Huther Bros. Saw Mfg. Co., Inc., Rochester, N. Y. "Semhi."
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Simonds Saw & Steel Co., Fitchburg, Mass.

Standard Tool Co., Cleveland, O.
Starrett, L. S., Co., The, Athol, Mass.
Thurco—Thurston Mfg. Co., Providence, R. I.

SAWS, MITRE BOX.

Atkins—E. C. Atkins & Co., Indianapolis, Ind.
Ohlen—Ohlen Bishop Co, The, Columbus, O.
Rockford Mitre Box Co., Rockford, Ill.

SAWS, PATTERNMAKERS', PIT, STAIRBUILDERS' AND WHIP.

Atkins—E. C. Atkins & Co., Indianapolis, Ind.

SAWS, PLUMBERS'.

American Saw & Tool Works, Chicago, Ill.
Atkins—E. C. Atkins & Co., Indianapolis, Ind.
Bernz Co., Otto, Newark, N. J.
Diamond Saw & Stamping Works, Buffalo, N. Y. "Sterling."
Disston, Henry, & Sons, Inc., Philadelphia, Pa.
Ohlen-Bishop Co., The, Columbus, O.
Simonds Saw & Steel Co., Fitchburg, Mass.
Wizard—Bay State Saw & Tool Mfg. Co., Inc., Winchester, Mass.

SAWS, RAIL.

Aldon—Aldon Co., The, Chicago, Ill.
Atkins, E. C., & Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Philadelphia, Pa.
Napier Saw Works, Inc., Middletown, N. Y. "Expert," "Quality."
Industrial Works, Bay City, Mich.
Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Richardson & Tallman, Shelbyville, Ill.
Schmidt—Manning, Maxwell & Moore, Inc., New York.
Wizard—Bay State Saw & Tool Mfg. Co., Inc., Winchester, Mass.

SAWS, RIFT.

Atkins, E. C., & Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Philadelphia, Pa.
Eagle—Eagle Saw Works, Chattanooga, Tenn.
Hoe, R., & Co., Inc., New York, N. Y.
Simonds Saw & Steel Co., Fitchburg, Mass.
Southern—Southern Saw Works, Atlanta, Ga.

SAWS, RIP, SELF FEED.

American Saw Mill Machinery Co., Hackettstown, N. J.
Atkins—E. C. Atkins & Co., Indianapolis, Ind.
Badger State Machine Works, Beloit, Wis.
Beach—Beach Mfg. Co., Montrose, Pa.
Crescent Machine Company, Leetonia, Ohio.
Hall & Brown Woodworking Machine Co., St. Louis, Mo.
Hermance Machine Co., Williamsport, Pa. "Hermance."
Heston & Anderson, Fairfield, Iowa (portable). "H. & A."
Holmes, E. & B., Machinery Co., Buffalo, N. Y.
Jenkins Machine Co., Sheboygan, Wis.
Newman Machine Co., Greensboro, N. C.
Sinker-Davis Co., The, Indianapolis, Ind. "Hoosier."

SAWS, SCROLL.

Atkins, E. C., & Co., Indianapolis, Ind.
Beach—Beach Mfg. Co., Montrose, Pa.
Edge, Frank, & Co., Grand Rapids, Mich. (blades only).
Grammes, L. F., & Sons, Allentown, Pa.
Holcomb, A. L., Co., Grand Rapids, Mich.
Lester, New Rogers—Millers Falls Co., Millers Falls, Mass.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Yates-American Machine Co., Rochester, N. Y. (electric).

SAWS, SHAPER.

Peerless Machine Co., Racine, Wis.

SAWS, SHINGLE.

Atkins—E. C. Atkins & Co., Indianapolis, Ind.
Crown—American Saw Mill Machinery Co., Hackettstown, N. J.
Disston, Henry & Sons, Inc., Philadelphia, Pa.
Eagle—Eagle Saw Works, Chattanooga, Tenn.
Griffiths, Albert Saw Co., The, Boston, Mass.
Hill-Curtis Co., Kalamazoo, Mich.
Hoe, R., & Co., Inc., New York, N. Y.
Lippert, E. T., Saw Co., Pittsburgh, Pa.
Ohlen-Bishop Co., The, Columbus, O.
Simonds Saw & Steel Co., Fitchburg, Mass.
Southern—Southern Saw Works, Atlanta, Ga.

SAWS, STONE CUTTING.

Atkins—E. C. Atkins & Co., Indianapolis, Ind.
Disston Sons Co., Henry, Philadelphia, Pa.
Hoe, R., & Co., Inc., New York, N. Y.
Lane Mfg. Co., Montpelier, Vt.
Simonds Saw & Steel Co., Fitchburg, Mass.

SAWS, SWING, CUT-OFF.
(See also "Machinery, Sawmill.")

American Saw Mill Mach'y Co., Hackettstown, N. J. "American."
Atkins, E. C., & Co., Indianapolis, Ind.
Badger State—Badger State Machine Works, Beloit, Wis.
Beach—Beach Mfg. Co., Montrose, Pa.
Beloit—Hendley & Whittemore Co., Beloit, Wis.
Crescent—Crescent Machine Co., Leetonia, O.
Dodds, Alexander Co., Grand Rapids, Mich.
Frick Co., Waynesboro, Pa.
General Supply & Machine Co., Meridian, Miss.
Grammes, L. F., & Sons, Allentown, Pa.
Hill-Curtis Co., Kalamazoo, Mich.
H & A—Heston & Anderson, Fairfield, Iowa (portable).
Hoe, R., & Co., Inc., New York, N. Y.
Irvington Machine Works, Grand Rapids, Mich.
Jenkins Machine Co., Sheboygan, Wis.
Kline, Lewis T., Alpena, Mich.
Newman Machine Co., Greensboro, N. C.
Ober—Ober Mfg. Co., Chagrin Falls, Ohio.
Pryibil Machine Co., The, New York, N. Y.
Racine—Racine Tool & Machine Co., Racine, Wis.
Raleigh Iron Works Co., Raleigh, N. C.
Reliance—Kaetker Saw Machine Co., Cincinnati, O. (motor driven).
Scarbrough Mfg. Co., Chattanooga, Tenn.
Siddall—Sumter Machinery Co., Sumter, S. C.
Sidney Machine Tool Co., Sidney, O.
Sinker-Davis Co., The, Indianapolis, Ind. "Hoosier."
Standard Saw Mill Machinery Co., Erie, Pa.
Towsley, John T., Mfg. Co., Cincinnati, O.
United States Machine Co., Williamsport, Pa. (swing and self-contained).
Up-To-Date—E. & B. Holmes Machinery Co., Buffalo, N. Y.
Wallace—J. D. Wallace & Co., Chicago, Ill.
Wheland—The Wheland Co., Chattanooga, Tenn.
Woods Machine Co., S. A., Boston, Mass.

SAWS, TUBING, FOR HAND FRAME USE.

Expert, Quality—Napier Saw Works, Inc., Middletown, N. Y.
"T T"—Henry G. Thompson & Son Co., New Haven, Conn.

SAWS, VARIETY.

American—American Saw Mill Machinery Co., Hackettstown, N. J.
Beach—Beach Mfg. Co., Montrose, Pa.
Hutchinson Mfg. Co., Norristown, Pa. (Trade names—Beaver, Speed Marvel.)
Kennedy, Ralph, Philadelphia, Pa.
Lane Mfg. Co., Montpelier, Vt.
Safty Saw—D. W. Onan & Sons, Minneapolis, Minn.
State—Emmert Mfg. Co., Waynesboro, Pa.
Tannewitz Works, The, Grand Rapids, Mich.
Union—Gallmeyer & Livingston Co., Grand Rapids, Mich.
Wallace—J. D. Wallace & Co., Chicago, Ill.

SAWS, VENEER.

Atkins, E. C., & Co., Indianapolis, Ind.
Hoe, R., & Co., Inc., New York, N. Y.
Seibert & Co., Louis L., Cincinnati, O.

SAWS, WABBLE.

Atkins, E. C., & Co., Indianapolis, Ind.

SCAFFOLDING, STEEL, ADJUSTABLE.

Fischer & Hayes Rope & Steel Co., Chicago, Ill. (suspended).
Folding Scaffold Bracket Co., The, Detroit, Mich.
Patent Scaffolding Co., The, Chicago, Ill.
Trouble-Saver—The Steel Scaffolding Co., Evansville, Ind.
Western Tool & Mfg. Co., Springfield, O.

SCAFFOLDING, WOOD, ADJUSTABLE.

Consolidated Pump Co., Toledo, Ohio.
Neville Mfg. Co., Kewanee, Ill.
Patent Scaffolding Co., The, Chicago, Ill.

SCALES.

American Kron—American Kron Scale Co., New York
American—American Scale Co., Kansas City, Mo.
Amthor Testing Instrument Co., Brooklyn, N. Y.
Bennington Scale Mfg. Co., Bennington, Vt.
Buffalo Scale Co., Inc., Buffalo, N. Y.
Brown & Sharpe Mfg. Co., Providence, R. I.
Fairbanks, Morse & Co., Chicago, Ill.
Fairbanks—The Fairbanks Co., New York, N. Y.
Fairbanks & Co., E. & T., St. Johnsbury, Vt.
Gaston Scale Co., Beloit, Wis.
Hanson Bros. Scale Co., Chicago, Ill.
Howe Scale Co., Rutland, Vt. "Ball Bearing."
Leinert—John Simmons Co., New York, N. Y. (Automatic gravity.)

National Scale Co., Chicopee Falls, Mass. (Automatic.)
Richardson Scales Co., Passaic, N. J.
Standard Scale & Supply Corp., Pittsburgh, Pa. "Crescent," "Standard."
Stearns Motor Mfg. Co., Ludington, Mich.
Toledo Scale Co., Toledo, O.
Weber & Pitcher, Detroit, Mich.
Weightometer—Merrick Scale Mfg. Co., Passaic, N. J. (for coal, sand, etc.).

SCALES, GRADE, FOR PIPING.

Modern Utilities Co., Harrisburg, Penna.

SCALES, KNIFE BALANCING.

Buffalo—Samuel C. Rogers & Co., Buffalo, N. Y.

SCARIFIERS.

Universal Road Machinery Co., Kingston, N. Y. (Trade names—Porcupine, Reliance.)

SCISSORS, MILL AND ELECTRICIANS'.

Wiss, J., & Sons Co., Newark, N. J.

SCOOPS, GRAIN.

Weller Mfg. Co., Chicago, Ill. "Champion," "Hercules."

SCOOPS, TUNNELING.

Pollard, Joseph G., Co., Inc., Brooklyn, N. Y.

SCRAPERS, BEARING.

Alert Tool Co., Philadelphia, Pa.
Anderson—Anderson Bros. Mfg. Co., Rockford, Ill.
Buffum Tool Co., Louisiana, Mo.
Cornwell—The Cornwell Quality Tools Co., Cuyahoga Falls, Ohio.
Goodell-Pratt Co., Greenfield, Mass.
Marcy Tool Works, Inc., Putnam, Conn.
Mound Tool Co., St. Louis, Mo. "Mound."
Pilleys—Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Vlchek Tool Co., The, Cleveland, O.

SCRAPERS, BELT.

Atkins, E. C., & Co., Indianapolis, Ind.

SCRAPERS, BOX.

Dandy—Bridgeport Hardware Mfg. Co., Bridgeport, Conn.
Drew, C., & Co., Kingston, Mass.
Duffy Manufacturing Co., Chicago, Ill.
Jennings, C. E., & Co., New York, N. Y.
Johnson, Wm., Firm of, Newark, N. J.
Marcy—Marcy Tool Works, Putnam, Conn.
Peck, Stow & Wilcox Co., Southington, Conn.
Perfection — Bridgeport Hardware Mfg. Corp., Bridgeport, Conn.
Sayre, L. A., Co., Newark, N. J.
Simonds Saw & Steel Co., Fitchburg, Mass.
Stanley Rule & Level Co., New Britain, Conn.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.
White Co., The L. & I., Buffalo, N. Y.

SCRAPERS, CABINET MAKERS'.

Anderson Jib-Type—Anderson Bros. Mfg. Co., Rockford, Ill.
Atkins, E. C., & Co., Indianapolis, Ind. (blades).
Crescent—Crescent Co., Inc., The, Meriden, Conn.
Dikeman Mfg. Co., The, Norwalk, Conn.
Disston & Sons Co., Henry, Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Jennings, C. E., & Co., New York, N. Y.
Johnson, Wm., Firm of, Newark, N. J.
Millers Falls Co., Millers Falls, Mass.
Starrett Co., The L. S., Athol, Mass.
Stearns & Co., E. C., Syracuse, N. Y.
Weber Mfg. Co., West Allis, Wis. "Weber."
Whitney—Baxter D. Whitney & Son, Inc., Winchendon, Mass.
Wilcox, Crittenden & Co., Inc., Middletown, Conn.

SCRAPERS, CARBON.

Alert Tool Co., Philadelphia, Pa.
Buffum Tool Co., Louisiana, Mo.
Goodell-Pratt Co., Greenfield, Mass.
Marcy Tool Works, Inc., Putnam, Conn.
Morgan Mfg. Co., Inc., Keene, N. H.

SCRAPERS, CEMENT FLOOR.

Eierman Floor Scraper Co., The, Brooklyn, N. Y.

SCRAPERS, FLUE.

(See also "Cleaners, Boiler Flue.")
International Combustion Engineering Corp., New York, N. Y.
Engineer's Favorite—Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Gem Mfg. Co., Pittsburgh, Pa.
Gilmore—F. G. Crowell, Buffalo, N. Y.

Newark Brush & Scraper Co., Newark, N. J.
Walsh & Weidner Boiler Co., The, Chattanooga, Tenn.

SCRAPERS, PIPE.

Mound Tool Co., St. Louis, Mo.

SCRAPERS, PLUMBERS'.

(See "Hooks, Shave.")

SCRAPERS, PNEUMATIC.

Anderson Bros. Mfg. Co., Rockford, Ill.

SCRAPERS, ROAD AND DRAG.

American—The American Steel Scraper Co., Sidney, Ohio.
Asheboro Wheelbarrow Co., Asheboro, N. C.
Beaumont, R. H., Co., Philadelphia, Pa. (coal storage).
Chattanooga Wheelbarrow Co., Chattanooga, Tenn. "Southern."
Fairbanks—The Fairbanks Co., New York, N. Y.
General Wheelbarrow Co., Cleveland, Ohio (formerly Akron Barrow Company).
Georgian—The Fairbanks Co., New York, N. Y.
Haslup, Doan, Sidney—Sidney Steel Scraper Co., Sidney, Ohio.
Lansing Co., Lansing, Mich.
Power Hoe—Link-Belt Co., Chicago and Philadelphia.
Sauerman Bros., Chicago, Ill.
Stockland Road Machinery Co., Minneapolis, Minn.
Syracuse Chilled Plow Co., Syracuse, N. Y.
Toledo Wheelbarrow Co., Toledo, O. "Bull Frog."

SCRAPERS, TOOLMAKERS'.

Alert—Alert Tool Co., Philadelphia, Pa.

SCREENS, FURNACE, CHAIN.

Codd, E. J., Co., Baltimore, Md.

SCREENS, SEWAGE.

Link-Belt Company, Chicago, Ill., and Philadelphia, Pa.
P. F. T.—Pacific Flush Tank Co., Chicago, Ill.

SCREENS, TRAVELING, WATER.

Chain Belt Co., Milwaukee, Wis.
Link-Belt Company, Chicago, Ill., and Philadelphia, Pa.
Weller Mfg. Co., Chicago, Ill.

SCREENS, VENT.

Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
J. R. S. Specialties Mfg. Co., Inc., The, New York, N. Y.

SCREENS, WIRE, AND PERFORATED METAL.

Beckley Perforating Co., Garwood, N. J. "Morgan."
Buffalo Wire Works, Buffalo, N. Y.
Connellsville Machine & Car Co., Connellsville, Pa.
Cook, A. D., Inc., Lawrenceburg, Ind.
Cross Engineering Co., Carbondale, Pa.
Harrington & King Perforating Co., Chicago, Ill
Howard & Morse, New York, N. Y.
Jeffrey Mfg. Co., Columbus, O.
Johnston & Chapman Co., Chicago, Ill.
Jordan & Steele Mfg. Co., Charlotte, Mich.
Link-Belt Company, Chicago and Philadelphia.
Littleford Bros., Cincinnati, O.
Montgomery Coal Washing & Mfg. Co., Birmingham Ala.
Michigan Wire Cloth Co., Detroit, Mich.
Morrow Mfg. Co., Wellston, Ohio.
Mundt, Chas., & Sons, Jersey City, N. J.
Nortmann-Duffke Co., Milwaukee, Wis.
Oliver Mfg. Co., Wm. J., Knoxville, Tenn.
Parrish Flexible Arm—Wilmot Engineering Co., Hazelton, Pa.
Reliance—Universal Road Machinery Co., Kingston, N. Y.
Robins Conveying Belt Co., New York.
Sackett-Chicago—Sackett Screen & Chute Co., Chicago
Seaverns, James B., Co., Chicago, Ill.
Standard—Jeffrey Mfg. Co., Columbus, O.
Standard Sand & Machine Co., Cleveland, O.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Taylor-Wharton Iron & Steel Co., High Bridge, N. J
Tyler—W. S. Tyler Co., Cleveland, O. (woven).
Usona Mfg. Co., St. Louis, Mo.
Webb City & Carterville Foundry & Machine Works, Webb City, Mo.
Webster Mfg. Co., The, Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wickwire-Spencer Steel Co., New York, N. Y.

SCREW BORE, FOR PORTABLE CONCRETE CONSTRUCTION.

Richmond—Richmond Screw Anchor Co., New York, N. Y.

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Hartness—Jones & Lamson Machine Co., Springfield, Vt.

SCREWDRIVERS.

Bernz, Otto, Newark, N. J.
Billings & Spencer Co., The, Hartford, Conn.
Braunsdorf-Mueller Co., Elizabeth, N. J.
Bridgeport Hardware Mfg. Corp., Bridgeport, Conn. (Trade names—Big Bully, Challenge, Hercules, Little Wonder, Matchless, Oh-Kay, Pribar, Reliance, Tom Thumb, Trusty, Vulcan.)
Buffum Tool Co., Louisiana, Mo. "Eclipse," "Monarch."
Bullock Mfg. Associates, Springfield, Mass.
Clark—Connecticut Valley Mfg. Co., Centerbrook, Conn.
Coburn Tool Co., The, Boston, Mass. (screwholding). (Trade names—Coburn, Unitool.)
Cornwell—The Cornwell Quality Tools Co., Cuyahoga Falls, Ohio.
Cox, S. J., Franklin, Pa. "Cox Hold Fast."
Cronk—The Cronk & Carrier Mfg. Co., Montour Falls, N. Y.
C-S Co.—Chapin-Stephens Co., Pine Meadow, Conn.
Dasco—Damascus Steel Products Co., Rockford, Ill.
Disston & Sons, Inc., Henry, Philadelphia, Pa.
Dolman—American Saw & Mfg. Co., Springfield, Mass.
Elmore—Chapin-Stephens Co., Pine Meadow, Conn.
Errington—Errington Mechanical Laboratory, New York.
Goodell-Pratt Co., Greenfield, Mass.
Hamr-Handl—Crescent Tool Co., Jamestown, N. Y.
Harding Mfg. Co., Mansfield, Mass. (Trade names—Blue Line, Gray Line.)
Hargrave—The Cincinnati Tool Co., Cincinnati, O.
Harwood Defiance—Stanley Rule & Level Co., New Britain, Conn.
Hawks—Hugo Mfg. Co., Duluth, Minn.
Herbrand Co., The, Fremont, O.
Ideal—Neil & Smith Electric Tool Co., The, Cincinnati, O.
Irvington Mfg. Co., Irvington, N. J.
Jennings, C. E., & Co., New York, N. Y.
Lenox—American Saw & Mfg. Co., Springfield, Mass.
Lock Ferrule—Dicke Tool Co., The, Downer's Grove, Ill.
Marcy Tool Works, Inc., Putnam, Conn.
Martin Machine Co., Turners Falls, Mass.
Mayhew Steel Products, Inc., New York, N. Y.
Mephisto—W. A. Ives Mfg. Co., Wallingford, Conn.
Midget—Millers Falls Co., Millers Falls, Mass.
Millers Falls Co., Millers Falls, Mass.
Mound—Mound Tool Co., St. Louis, Mo.
New Century—Braunsdorf-Mueller Co., Elizabeth, N. J.
No-Bust—Dean & Robinson, New York, N. Y.
North Bros. Mfg. Co., Philadelphia, Pa.
Pexto—Peck, Stow & Wilcox Co., Southington, Conn.
Philadelphia—Steward & Romaine Mfg. Co., Philadelphia, Pa.
Pioneer—The Southington Mfg. Co., Southington, Conn.
Red Devil—Smith & Hemenway Co., Irvington, N. J.
Sargent—Sargent & Co., New Haven, Conn.
S. M. Co.—The Southington Mfg. Co., Southington, Conn.
Smith, H. D., & Co., The, Plantsville, Conn. (Trade names—Perfect Handle, Six-Sixty.)
Starrett, L. S., Co., Athol, Mass.
Stiles & Co., H. A., Boston, Mass.
Swan Co., The James, Seymour, Conn.
Threadwell Tool Co., The, Greenfield, Mass.
Tobrin Tool Co., The, Plantsville, Conn.
Tuck Mfg. Co., Brockton, Mass.
Turner & Deegan, Bristol, Conn. (Trade names—Handy, Rosedale, Bristol, Victor.)
V. & B.—Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Union Hardware Co., Torrington, Conn. "Champion."
Union Tool Co., Orange, Mass.
Vichek Tool Co., The, Cleveland, O.
Washburn Co., The, Wire Goods Co. Div., Worcester, Mass.
Yankee—North Bros. Mfg. Co., Philadelphia, Pa.

SCREWDRIVERS, ELECTRIC.

Black & Decker Mfg. Co., The, Towson, Md.
Cincinnati—The Cincinnati Electric Tool Co., Cincinnati, O.
Electro-Magnetic Tool Co., Chicago, Ill.
Hergi Mfg. Co., The, Bridgeport, Conn.
Ideal—The Neil & Smith Electric Tool Co., Cincinnati, O.
Stow Mfg. Co., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.
Threadwell Tool Co., The, Greenfield, Mass.
U. S. Electrical Tool Co., Cincinnati, O.

SCREWDRIVERS, ELECTRICIANS'.

Blue Line—Harding Mfg. Co., Mansfield, Mass.
Coates Clipper Mfg. Co., Worcester, Mass.
Goodell-Pratt Co., Greenfield, Mass.
Hargrave—The Cincinnati Tool Co., Cincinnati, O.

Rubber covered—The H. D. Smith Co., Plantsville, Conn.
Starrett Co., The L. S., Athol, Mass.
Unitool—The Coburn Tool Co., Boston, Mass.

SCREWDRIVERS, OFFSET.

B. & S.—The Billings & Spencer Co., Hartford, Conn.
Goodell-Pratt Co., Greenfield, Mass.
Hargrave—The Cincinnati Tool Co., Cincinnati, O.
Mossberg Pressed Steel Corp., Attleboro, Mass.
National Tool Co., New York, N. Y.
Perfect Handle—The H. D. Smith & Co., Plantsville, Conn.
Threadwell Tool Co., The, Greenfield, Mass.
Vichek Tool Co., The, Cleveland, O.

SCREWDRIVERS, POWER.

(See "Machines, Screwdriving.")

SCREWDRIVERS, RATCHET.

Goodell-Pratt Co., Greenfield, Mass.
Hargrave—Cincinnati Tool Co., Cincinnati, O. Pistol Grip.
Millers Falls Co., Millers Falls, Mass.
Yankee—North Bros. Mfg. Co., Philadelphia, Pa.

SCREWDRIVERS, SPIRAL.

Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., Millers Falls, Mass.
Yankee—North Bros. Mfg. Co., Philadelphia, Pa.

SCREWDRIVERS, "T" HANDLE.

Hammer Handle—Crescent Tool Co., Jamestown, N. Y.

SCREWHOLES.

Rawlplug Co., Inc., New York, N. Y.

SCREWS, BENCH AND HAND.

Adjustable Clamp Co., Chicago. "Peerless-Jorgensen."
Aldrich—William K. Aldrich Co., Lowell, Mass.
Bass Bros., Inc., New York, N. Y.
Chapin-Stephens Co., Pine Meadow, Conn.
Christiansen, C., Chicago, Ill.
Emmert Mfg. Co., Waynesboro, Pa.
Estes, E. B., & Sons, New York, N. Y.
Freeport Truck & Clamp Co., Freeport, Mich.
Grand Rapids School Equipment Co., Grand Rapids, Mich.
Pexto—Peck, Stow & Wilcox Co., Southington, Conn.
Reno—Western Automatic Machine Screw Co., Elyria, O.
Rock Island Mfg. Co., Rock Island, Ill.
Sandusky Tool Corp., Sandusky, O.
Sargent—Sargent & Co., New Haven, Conn.

SCREWS, BRASS.

American Brass & Copper Co., The, New York, N. Y.
Ansonia Mfg. Co., Ansonia, Conn.
Atlas Bolt & Screw Co., Cleveland, O.
Belco—The Bell Company, Buffalo, N. Y.
Benedict—James Graham & Co., New Haven, Conn.
Blake & Johnson Co., The, Waterbury, Conn.
Bridgeport Brass Co., Bridgeport, Conn.
Buckeye—Buckeye Brass & Mfg. Co., Cleveland, O.
Economy Screw Corp., Chicago, Ill.
Elco Tool & Screw Corp., Rockford, Ill.
Equipoise Rivet Co., The, Waterbury, Conn.
Grammes, L. F., & Sons, Allentown, Pa.
Harper, H. M., Co., The, Evanston, Ill.
National Marine Lamp Co., The, Forestville, Conn.
National Screw & Mfg. Co., Cleveland, O.
New England Screw Co., Boston, Mass.
Parker, Chas. Co., The, Meriden, Conn.
Pheoll Mfg. Co., Chicago, Ill.
Richards, Benjamin, & Co., The, Winsted, Conn.
St. Louis Screw Co., St. Louis, Mo.
Star—U. T. Hungerford Brass & Copper Co., New York, N. Y.
United States Screw Co., Meriden, Conn.
Waltham Appliance Co., Waltham, Mass.
Waterbury Mfg. Co., Waterbury, Conn.

SCREWS, CAP, MACHINE AND SET.

Acme Machine Products Co., Kalamazoo, Mich.
Allen Socket Head Cap Screw—Allen Mfg. Co., Inc., Hartford, Conn.
American Bolt Corp., Chicago, Ill.; Detroit, Mich.; Bayonne, N. J.
American Screw Co., Providence, R. I.
Ansonia Mfg. Co., Ansonia, Conn.
Atlas Bolt & Screw Co., Cleveland, O.
Belco—The David Bell Co., Inc., Buffalo, N. Y.
Blake & Johnson Co., Waterbury, Conn.
Bristol's—Bristol Co., The, Waterbury, Conn.
Buffalo Bolt Co., North Tonawanda, N. Y.
California Screw Co., San Francisco, Cal.
Cap Screw & Nut Co. of America, New York, N. Y.
Chicago Screw Co., The, Chicago, Ill.

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Clark Bros. Bolt Co., Milldale, Conn.
Cleveland Cap Screw Co., Cleveland, O.
Cleveland Wrought Products Co., Cleveland, O.
Columbus Bolt Works, Columbus, O.
Continental Wood Screw Co., New Bedford, Mass.
Corbin Screw Corp., New Britain, Conn.
Coulter-Curtis Screw Co., Inc., Buffalo, N. Y.
Eastern Bolt & Nut Co., Providence, R. I.
Eastern Machine Screw Corp., New Haven, Conn
Economy Screw Corp., Chicago, Ill. (iron and brass)
Elco Tool & Screw Corp., Rockford, Ill.
Fostoria Screw Co., The, Fostoria, Ohio.
F. P. Screw Co., The, Cleveland, O.
Ferry Cap & Set Screw Co., The, Cleveland, O.
Grammes, L. F., & Sons, Allentown, Pa.
Hallowell—Standard Pressed Steel Co., Jenkintown, Pa.
H. M. S.—Hartford Machine Screw Co., Hartford, Conn.
Heiz & Heiz, New York, N. Y. "Handy Assortment."
Haskell Mfg. Co., W. H., Pawtucket, R. I.
Hassall, John, Inc., Brooklyn, N. Y.
Lamson & Sessions Co., Cleveland, O.
Liberty Screw Co., Worcester, Mass.
Lubenow Mfg. Co., Milwaukee, Wis.
Mac-It—Strong, Carlisle Hammond Co., Cleveland, Ohio.
Michigan Screw Co., Lansing, Mich.
Morgan Mfg. Co., Inc., Keene, N. H.
National Acme Company, The, Cleveland, Ohio. "Namco."
National Machine Products Co., Detroit, Mich.
National Marine Lamp Co., The, Forestville, Conn.
National Screw & Mfg. Co., Cleveland, O.
New Britain Machine Co., New Britain, Conn.
New England Screw Co., Boston, Mass.
Ottemiller, Wm. H., Co., York, Pa.
Pacific Coast Forge Co., Seattle, Wash.
Paragon Tool Co., Seattle, Wash.
Peerless Automatic Machine Co., Cleveland, O.
Penn Hardware Co., Reading, Pa.
Perfection—Foster Bolt & Nut Mfg. Co., Cleveland, Ohio.
Pheoll Mfg. Co., Chicago, Ill.
Pittsburgh Screw & Bolt Co., Pittsburgh, Pa.
Progressive Mfg. Co., Torrington, Conn.
Reed & Prince Mfg. Co., Worcester, Mass.
Reed-Prentice Co., Worcester, Mass.
Reidy Machine Screw Co., New Haven, Conn.
Reliable Cap & Set Screw Co., Chicago, Ill.
Rochester Machine Screw Co., Rochester, N. Y.
Scovill Mfg. Co., Waterbury, Conn.
Specialty Bolt & Rivet Works, Shelton, Conn.
Standard Gauge Steel Co., Beaver Falls, Pa.
Standard Nut & Bolt Co., Valley Falls, N. Y.
Standco—Standard Pressed Steel Co., Jenkintown, Pa.
Star—U. T. Hungerford Brass & Copper Co., New York, N. Y.
St. Louis Screw Co., St. Louis, Mo.
Steward & Romaine Mfg. Co., Philadelphia, Pa.
Superior—The Superior Screw & Bolt Mfg. Co., Cleveland, O.
Upson Nut Co., The, Cleveland, O.
U. S. Automatic Co., Amherst, O.
Victor-Peninsular Company, Detroit, Mich.
Wallace Barnes Co., The, Bristol, Conn.
Waterbury Mfg. Co., Waterbury, Conn.
Western Automatic Machine Screw Co., The, Elyria, O
Western Screw Products Co., St. Louis, Mo.
Worcester Machine Screw Co., Worcester, Mass.
York Screw Works, Dept. H., York, Pa.
Ziegler Mfg. Co., Alexandria, Ind.

SCREWS, CLOSET.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Ampinco—American Pin Co., Waterbury, Conn. (brass and iron).
Ansonia Mfg. Co., Ansonia, Conn.
Bernz, Otto, Co., Newark, N. J. (brass and iron).
Butterworth Supply Co., Philadelphia, Pa.
Chicago Nut Mfg. Co., Chicago, Ill.
Elgin Brass Co., The, New York, N. Y.
Equipoise Rivet Co., The, Waterbury, Conn.
Loyal Brass Co., Cleveland, O.
Peerless Mfg. & Supply Co., New York, N. Y.
Pheoll Mfg. Co., Chicago, Ill.
Richards, Benjamin, & Co., The, Winsted, Conn.
Rundle Mfg. Co., Milwaukee, Wis.
Russell, John M., Mfg. Co., Inc., The, Naugatuck, Conn.
Waterbury Mfg. Co. Waterbury, Conn.
Winsted Hardware Mfg. Co., Winsted, Conn.
Woodward-Wanger Co., Philadelphia, Pa.

SCREWS, COACH AND LAG.

American Bolt Co., Birmingham, Ala.
American Bolt Corp., Chicago, Ill.; Detroit, Mich.; Bayonne, N. J.
American Equipment Co., Norristown, Pa.

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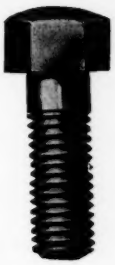

Atlas Bolt & Screw Co., Cleveland, O.
Bethlehem Steel Co., Bethlehem, Pa.
Blue Ribbon—Chicago Nipple Mfg. Co., Chicago, Ill. (flat head with bolt).
Buffalo Bolt Co., North Tonawanda, N. Y.
Clark Bros. Bolt Co., Milldale, Conn.
Fee & Mason Mfg. Co., New York, N. Y.
Grabler Square Gee—Grabler Mfg. Co., Cleveland, O.
Graham Bolt & Nut Co., Pittsburgh, Pa.
Haskell, Wm. H., Mfg. Co., The, Pawtucket, R. I.
Isert, John H., Co., Inc., Louisville, Ky.
Kansas City Bolt & Nut Co., Kansas City, Mo.
Lake Erie Bolt & Nut Co., Cleveland, O.
Lamson & Sessions Co., Cleveland, O.
Lanz, M., Bolt Co., Pittsburgh, Pa.
Lebanon Iron Co., Philadelphia, Pa.
McCabe Hanger Mfg. Co., The, New York, N. Y. "McCabe."
McGookin, H. D., Philadelphia, Pa.
Milton Mfg. Co., The, Milton, Pa.
Modern Mfg. Co., Cleveland, O.
Moran Bolt & Nut Mfg. Co., St. Louis, Mo.
National Marine Lamp Co., The, Forestville, Conn.
National Screw & Mfg. Co., Cleveland, O.
New England Bolt Co., Inc., Everett, Mass.
Oliver—Oliver Iron & Steel Corp., Pittsburgh, Pa.
Pawtucket Mfg. Co., Pawtucket, R. I.
Perfection—Foster Bolt & Nut Mfg. Co., Cleveland, O.
Rawlplugs—The Rawlplug Co., Inc., New York, N. Y.
Robinson Mfg. Co., The, Cleveland, O.
Scranton Bolt & Nut Co., Scranton, Pa.
St. Louis Screw Co., St. Louis, Mo.
Standard Bolt Co., Columbus, O.
Standard Nut & Bolt Co., Valley Falls, R. I.
Steward & Romaine Mfg. Co., Philadelphia, Pa.
Superior—Superior Screw & Bolt Mfg. Co., The, Cleveland, O.
Victor-Peninsular Co., Detroit, Mich.
Wood, T. B., Sons Company, Chambersburg, Pa.

SCREWS, COCK AND BIBB.

Frank Bros., New York, N. Y.
Good Mfg. Co., Inc., New York, N. Y.
Peerless Mfg. & Supply Co., New York, N. Y.
Waterbury Mfg. Co., Waterbury, Conn.

SCREWS, COLLAR.

Belco—David Bell Company, Inc., Buffalo, N. Y.
Coulter-Curtis Screw Co., The, Buffalo, N. Y.
Buckeye—Buckeye Brass & Mfg. Co., Cleveland, O.
Hartford Machine Screw Co., Hartford, Conn.
Ottemiller, Wm. H., Co., The, York, Pa.
Pawtucket Mfg. Co., Pawtucket, R. I.
Rochester Machine Screw Co., Rochester, N. Y.
St. Louis Screw Co., St. Louis, Mo.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

SCREWS, DRIVE.

Bethlehem Steel Co., Bethlehem, Pa.
Lanz, M., Bolt Co., Pittsburgh, Pa.
National Screw & Mfg. Co., Cleveland, O.
Parker-Kalon Corp., New York, N. Y.
Pawtucket Mfg. Co., Pawtucket, R. I.

SCREWS, HAND.

Adjustable Clamp Co., Chicago, Ill. (Trade names—Jorgensen, Peerless, Pony.)
Handy—Handy Mfg. Co., Chicago, Ill.
Christiansen, C., Chicago, Ill.
Hargrave—The Cincinnati Tool Co., Cincinnati, O.
Sandusky Tool Corp., Sandusky, O.
Hartford Clamp Co., Burnside, Conn.
Narragansett Machine Co., Providence, R. I.

SCREWS, HANGER.

American Bolt Co., Birmingham, Ala.
American Bolt Corp., Chicago, Ill.; Detroit, Mich.; Bayonne, N. J.
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Bolt Co., North Tonawanda, N. Y.
Equipoise Rivet Co., The, Waterbury, Conn.
Haskell Mfg. Co., W. H., Pawtucket, R. I.
Lamson & Sessions Co., Cleveland, O.
Lanz, M., Bolt Co., Pittsburgh, Pa.
Modern Mfg. Co., Cleveland, O.
Robinson Mfg. Co., The, Cleveland, O.

SCREWS, HEADLESS.

Elco Tool & Screw Corp., Rockford, Ill.

SCREWS, HOOK AND EYE.

(See also "Bolts, Eye and Hook")

Bethlehem Steel Co., Bethlehem, Pa.
Haskell Mfg. Co., Wm. H., Pawtucket, R. I.
Modern Mfg. Co., Cleveland, O.
Steward & Romaine Mfg. Co., Philadelphia, Pa.
Washburn Co., The, Wire Goods Co. Div., Worcester, Mass.

SCREWS, JACK.

(See "Jackscrews.")

SCREWS, LATHE DOG.

Allen Safety—The Allen Mfg. Co., Inc., Hartford, Conn.

SCREWS, LIFTING.

T. & C.—Timmis & Clissold, Bound Brook, N. J.

SCREWS, PRESS.

Adjustable Clamp Co., Chicago, Ill. "Little Giant." "Pony."

SCREWS, ROLLED THREAD.

Hassall, John, Inc., Brooklyn, N. Y.
Hubbell, Harvey, Inc., Bridgeport, Conn.
Pheoll Mfg. Co., Chicago, Ill.

SCREWS, SERVICE BOX.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
Crampton-Farley Brass Co., Kansas City, Mo.
Gilbert, A., & Sons, Brass Foundry Co., St. Louis, Mo.
Glenn Mfg. Co., St. Charles, Ill.
Hays Mfg. Co., Erie, Pa.
Sanitary Company of America, Linfield, Pa.

SCREWS, SET AND CAP.

(See "Screws, Cap and Set.")

SCREWS, SET, HOLLOW OR SAFETY.

Allen—The Allen Mfg. Co., Inc., Hartford, Conn.
Ansonia Mfg. Co., Ansonia, Conn.
Bristol's Safety Set—The Bristol Co., Waterbury, Conn.
Chicago Screw Co., The, Chicago, Ill.
Coulter-Curtis Screw Co., Inc., Buffalo, N. Y.
Detroit Screw Works, Detroit, Mich.
Dodge Mfg. Corp., Mishawaka, Ind.
Eagle—Progressive Mfg. Co., Torrington, Conn.
Ferry Cap & Set Screw Co., The, Cleveland, O.
Foster—New Haven Screw Co., New Haven, Conn
The Strong, Carlisle & Hammond Co., Cleveland, O. "Mac-it."
Ottemiller, Wm. H., Co., York, Pa.
Rochester Machine Screw Co., Rochester, N. Y.

St. Louis Screw Co., St. Louis, Mo.
Standard Pressed Steel Co., Jenkintown, Pa. (Trade name—Unbrako.) (Square and hex. heads.)
Steward & Romaine Mfg. Co., Philadelphia, Pa.

SCREWS, THUMB.

(See "Nuts and Screws, Thumb or Wing.")

B. & S.—The Billings & Spencer Co., Hartford, Conn.
Blake & Johnson Co., Waterbury, Conn.
Devlin, Thos., Mfg. Co., Philadelphia, Pa.
Eberhard Mfg. Co., The, Cleveland, O.
Economy Screw Corp., Chicago, Ill. (iron and brass).
Pheoll Mfg. Co., Chicago, Ill.
Rochester Machine Screw Co., Rochester, N. Y.
Victor Products Corp., Chicago, Ill.
Western Automatic Machine Screw Co., Elyria, O.
Williams, J. H., & Co., Buffalo, N. Y.

SCREWS, TRAP.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
Crampton-Farley Brass Co., Kansas City, Mo.
Edwardsville Brass Co., Edwardsville, Ill.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Empire Brass Mfg. Co., Cleveland, O.
Exeter Brass Works, Exeter, N. H.
Farnan Brass Works, Cleveland, O.
Fries & Co., Buffalo, N. Y.
Gibson Bros Mfg. Co., North Chicago, Ill.
Gilbert, A., & Sons, Brass Foundry Co., St. Louis, Mo
Glenn Mfg. Co., St. Charles, Ill.
Haydenville Co., The, Haydenville, Mass.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Kelly Brass Works, Chicago, Ill.
Keystone Brass Works, Inc., Erie, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Mueller Co., Decatur, Ill.
Murdock Mfg. & Supply Co., Cincinnati, O.
Peck Bros. & Co., New Haven, Conn.
Perkes, Chas., Co., Philadelphia, Pa.
Pittsburgh Valve & Fittings Co., Barberton, O.
Powhatan Brass & Iron Works, Ranson, W. Va.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Richmond Foundry & Mfg. Co., Richmond, Va.
Seattle Brass Co., Seattle, Wash.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Stebbins, E., Mfg. Co., Springfield, Mass.
Street & Kent Mfg. Co., Chicago, Ill.
Union Brass & Metal Mfg. Co., St. Paul, Minn.
Union Metal Works, Chelsea, Mass.
Wolff Mfg. Corp., Chicago, Ill.

SCREWS, VENEER PRESS.

Superior Clamp Co., Chicago, Ill.

SCREWS, WASHER HEAD.

Elco Tool & Screw Corp., Rockford, Ill.

SCREWS, WOOD.

American Screw Co., Providence, R. I.
Bridgeport Screw Co., Bridgeport, Conn.
Champion Mfg. Co., Chicago, Ill.
Corbin Screw Corp., New Britain, Conn.
Elco Tool & Screw Corp., Rockford, Ill.
Gary Screw & Bolt Co., Chicago, Ill.
Grammes, L. F., & Sons, Inc., Allentown, Pa.
Holtite—Continental Wood Screw Co., New Bedford, Mass.
Malleable Iron Fittings Co., Branford, Conn.
National Screw & Mfg. Co., Cleveland, O.
Parker, Chas., Co., The, Meriden, Conn.
Pittsburgh Screw & Bolt Co., Pittsburgh, Pa
Reed & Prince Mfg. Co., Worcester, Mass.
Southington Hardware Co., The, Southington, Conn
Wilcox, Crittenden & Co., Middletown, Conn.

SCRIBERS.

Browne & Sharpe Mfg. Co., Providence, R. I.
Duwell—J. A. Finley Co., Allston, Mass.
Goodell-Pratt Co., Greenfield, Mass.
Starrett Co., The L. S., Athol, Mass.

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Watertite Drain & Scupper Co., Inc., New York, N. Y.

SCUTCHES, BRICKLAYERS'.

V & B—Vaughan & Bushnell Mfg. Co., Chicago, Ill.

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Bon Ton—Buffalo Specialty Co., Buffalo, N. Y.
Brasscrafters—J. P. Eustis Mfg. Co., Boston, Mass.
Brooklyn—Silver & Co., Brooklyn, N. Y.
Celluvarno—Sillcocks-Miller Co., South Orange, N. J. (white).
Central Specialty Mfg. Co., Chicago, Ill.
Columbus Brass Co., The, Columbus, O.
Eastern Specialty Mfg. Co., Scranton, Pa.
Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Leclaire Cabinet Works, Edwardsville, Ill.
Mott, J. L., Iron Works, The, Trenton, N. J.
National Bath Seat Co., New York, N. Y.
Omala—The Galard Co., New York, N. Y. (white).
Parker, Chas., Co., The, Meriden, Conn.
Plumbers Woodwork Co., Algoma, Wis.
Porceloid—Sanitary Specialties Co., Philadelphia, Pa.
San-O-La—Art Brass Co., New York, N. Y.
Shwab Bros. Co., New York, N. Y.
Smith, E. C., Mfg. Co., Chicago, Ill.
S. M. Co.—Searls Mfg. Co., Newark, N. J.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Superior Brass Novelty Co., New York, N. Y.
Wheeling Sanitary Mfg. Co., Wheeling, W. Va.
White Pyralin—C. F. Church Mfg. Co., Holyoke, Mass.

SEATS, TANK VALVE.

American Foundry & Mfg. Co., St. Louis, Mo.
Beneke Mfg. Co., Chicago, Ill.
Enterprise Brass Works, Muskegon, Mich.
Frost Mfg. Co., Kenosha, Wis.
Good Mfg. Co., Inc., New York, N. Y.
Indiana Brass Co., Frankfort, Ind.
M. V. B.—Morency-Van Buren Mfg. Co., Sturgis, Mich.

SEATS, WATER CLOSET, ALUMINUM.

Sherwood Brass Works, Detroit, Mich. (Trade names—Maxco, Sherwood.)

SEATS, WATER CLOSET, COMPOSITION AND HARD RUBBER.

Adamant—Fibre Mfg. Co., Boston, Mass.
Beneke Mfg. Co., Chicago, Ill.
Blackstone Co., Grand Rapids, Mich.
Com-Bah Fabroid Co., Fairfield, Me.
Everite—Luzerne Rubber Co., Trenton, N. J.
Evernu—Never Split Seat Co., Evansville, Ind.
Goodrich, B. F., Rubber Co., Akron, O.
Hayes Products Co., Grand Rapids, Mich.
Heap, Wm., & Sons, Grand Haven, Mich. "Bulldog," "Star."
Judd, Earl, Corp., Chicago, Ill.
Miller Co., Chas. A., Sturgis, Mich.
Sanitary Fibre Products Co., Chicago, Ill.
Whale-Bone-Ite — Brunswick-Balke-Collander Co. Chicago, Ill.

SEATS, WATER CLOSET, SELF-RAISING.

Atlas—Knott Mfg. Co., Tell City, Ind.
B. O. T. Mfg. Co., Trenton, N. J.
BRE Hygienic—BRE Mfg. Co., Boston, Mass.
Berglas, M. P., Mfg. Co., Brooklyn, N. Y.
Douglas Co., John, Cincinnati, O.
"I-X-L" Pump & Mfg. Co., Philadelphia, Pa.
Maxco—Sherwood Brass Works, Detroit, Mich.
Nelson, N. O., Mfg. Co., St. Louis, Mo.
Never Split Seat Co., Evansville, Ind.
Peerless Selling Co., Evansville, Ind.
Perfect Tank & Seat Co., Syracuse, N. Y.
Rockwell—Beneke Mfg. Co., Chicago, Ill.
Sanitary Specialties Co., Philadelphia, Pa.
Shwab Bros. Co., New York, N. Y. "Neverbreak," "Emery."
Standard Sanitary Mfg. Co., Pittsburgh, Pa.

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B. O. T. Mfg. Co., Trenton, N. J. (Trade names—B. O. T., Blanco.)
Becker Mfg. Co., Marietta, O. (Trade names—Cowan, Hercules.)
Boston Seat & Tank Co., Detroit, Mich.
B. R. E. Mfg. Co., Boston, Mass. (Trade names—Breco, Bre Hygienic.)
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Combah Fibroid Co., The, Fairfield, Maine.
Concord Woodworking Co., Concord, N. H.
Cowan Mfg. Co., The, Pittsburgh, Pa. (Trade names—Cowan Open Seat, Protecto.)

Coyne & Delaney Co., Brooklyn, N. Y. (Trade names—C. & D., Hidden Steel Screw, Kiddie Kant Slip.)
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Duplex Safety Seat Co., Rochester, N. Y.
Eclipse Seat Co., The, Far Rockaway, N. Y.
Esco Seat Co., Mattapan, Mass. (child's).
Heap, Wm., & Sons, Grand Haven, Mich. "Bulldog," "Star."
Interlocked—Crocker Chair Co., Sheboygan, Wis.
Ivorite—Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Ivoroid—Sanitary Specialties Co., Philadelphia, Pa.
Ivoreed Covering Co., Waterbury, Conn. (white).
Jones Hollow Ware Co., Baltimore, Md.
Juvenile—Shwab Bros. Co., New York, N. Y.
Juvenile Wood Products, Inc., Fort Wayne, Ind. "Little Toidey," "Toidey, Jr."
Kennedy-McCandless Corp., Rochester, N. Y. (child's).
Kiddie Toylette—Duplex Safety Seat Co., Rochester, N. Y.
Kolyon Mfg. Co., The, Greenfield, Mass.
Leclaire Cabinet Works, Edwardsville, Ill.
Lion Brand—The Olmstead-Thomson Mfg. Co., New Britain, Conn.
Maddock's, Thos., Sons Co., Trenton, N. J.
Maxco—Sherwood Brass Works, Detroit, Mich.
McLane Quality—McLane Mfg. Co., Milford, N. H.
Miller, Chas. A., Co., Sturgis, Mich.
Mott, J. L., Iron Works, The, Trenton, N. J.
Neverbreak—Shwab Bros. Co., New York, N. Y.
Never-Split Seat Co., Evansville, Ind.
Omala—The Galard Co., New York, N. Y. (white).
Osada Sheet Metal & Wood Works, Philadelphia, Pa.
Perfect Tank & Seat Co., Syracuse, N. Y.
Philadelphia Sheet Metal & Wood Works, The, Philadelphia, Pa.
Plumbers' Woodwork Co., Algoma, Wis. (Trade names—Babichairs, Badger Line.)
Porceloid—Sanitary Specialties Co., Philadelphia, Pa.
Re-Enforced—The Columbus Brass Co., Columbus, O.
Richmond Sanitary Mfg. Co., San Francisco, Cal.
Rockwell—Beneke Mfg. Co., Chicago, Ill.
Sanitor—Johns-Manville, Inc., New York, N. Y.
Silcocks-Miller Co., So. Orange, N. J. (Trade names—Celluvarno, Simco.)
Standard Tank & Seat Co., Inc., Camden, N. J. (Trade names—Ivory Pyralin, Perfect, Standard.)
Sturdy Mfg. Co., Inc., Stroudsburg, Pa. (child's).
Van Arnam Mfg. Co., Ft. Wayne, Ind. (Trade names—Closruf, Samson, VanArCo, Van Arnam.)
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Carew-Greene Engineering Co., Inc., New York, N. Y.
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Crane Co., Chicago, Ill.
De Rycke—Provost Engineering Co., Brooklyn, N. Y.
Detroit—American Blower Co., Detroit, Mich.
Direct Separator Co., Syracuse, N. Y.
Dunham, C. A., Co., Inc., Marshalltown, Iowa.
Elliott—Elliott Co., Jeannette, Pa.
Gardner Governor Co., The, Quincy, Ill.
Griscom-Russell Co., The, New York, N. Y. (Trade names—Bundy, Stratton, New Stratton, Stratton, Jr.)
Hine—James L. Robertson & Sons, New York, N. Y.
Hoppes—The Hoppes Mfg. Co., Springfield, O.
Illinois Engineering Co., Chicago, Ill.
Improved—Julian d'Este Co., Boston, Mass.
Kelley—Patterson-Kelley Co., The, New York, N. Y.
Kieley & Muller, New York, N. Y. "Kieley."
Koven, L. O., & Bro., Jersey City, N. J.
Lancaster Iron Works, Inc., Lancaster, Pa.
Lindstrom's Machine Works, Allentown, Pa.
Lindstrom—Plant Engineering & Equipment Co., Brooklyn, N. Y.
McAlear Mfg. Co., Chicago, Ill.
McDaniel—Watson & McDaniel Co., Philadelphia, Pa.
Milwaukee Steam Appliance Co., West Allis, Wis. "Victor."
Mitchell & Co., Inc., W. K., Philadelphia, Pa.
Mosher—United Machine & Mfg. Co., Cleveland, O.
Munroe, R., & Sons Mfg. Corp., Pittsburgh, Pa.
National Separator & Machine Co., Boston, Mass. "National," "Springfield."
National—The National Pipe Bending Co., New Haven, Conn.
Nicholson, W. H., & Co., Wilkesbarre, Pa. (traps combined). "Wyoming."
Patterson—Ernst & Co., Newark, N. J.
Peco—Pittsburgh Engineering Co., Jeannette, Pa.
Peeco—Plant Engineering & Equipment Co., Inc., Brooklyn, N. Y.
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Vater-Two Stage—Power Plant Specialty Co., Chicago.
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Walworth Company, Boston, Mass.
Washington—Petroleum Iron Works Co., Sharon, Pa.
Webster—Warren Webster & Co., Camden, N. J.
Welderon—Elliott Co., Jeannette, Pa.
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W. & McD.—Watson & McDaniel Co., Philadelphia, Pa.
Wright-Austin—Wright-Austin Co., Detroit, Mich.

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Cincinnati Tool Co., The, Cincinnati, Ohio. "Hargrave."

SETS, HYDRANT, LEATHER.

Algco—Auburn Leather Goods Co., Hartford, Conn.
Barwood, L. J., Mfg. Co., Stoneham, Mass.
Field, R. B., & Co., Worcester, Mass.

SETS, NAIL AND BRAD.

D. R. Barton—Mack & Co., Rochester, N. Y.
Braunsdorf-Mueller Co., Elizabeth, N. J.
Brown & Sharpe Mfg. Co., Providence, R. I.
Buck Bros., Millbury, Mass.
Buffum Tool Co., Louisiana, Mo.
Bullock Mfg. Associates, Springfield, Mass. "Bullock Best," "Handy Kitt," "Nobby."
Chapin-Stephens Co., Pine Meadow, Conn.
Cronk's—The Cronk & Carrier Mfg. Co., Montour Falls, N. Y.
Dasco—Damascus Steel Products Co., Rockford, Ill.
Goodell-Pratt Co., Greenfield, Mass.
Irvington Mfg. Co., Irvington, N. J.
Jennings, C. E., & Co., New York, N. Y.
Markwell, H. & A., Mfg. Co., New York, N. Y.
Mephisto—W. A. Ives Mfg. Co., Wallingford, Conn. (plain and with countersink).
O. K.—Millers Falls Co., Millers Falls, Mass.
Pioneer—The Southington Mfg. Co., Southington, Conn.
Sharpen Ezy—H. D. Smith & Co., Plantsville, Conn.
Stanley Rule & Level Co., New Britain, Conn.
Starrett Co., The L. S., Athol, Mass.
Syracuse Twist Drill Co., Syracuse, N. Y. "Syracuse," "Novol."
Threadwell Tool Co., The, Greenfield, Mass.
Tuck Mfg. Co., Brockton, Mass.
Union Tool Co., Springfield, Mass.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Victor—Victor Saw Works, Inc., Middletown, N. Y.

SETS OR SNAPS, RIVET.

Amco—Amco Sales Corp., Chicago, Ill.
Bernz, Otto, Co., Newark, N. J.
Boker, H., & Co., Inc., New York, N. Y.
Braunsdorf-Mueller Co., Elizabeth, N. J.
Buffum Tool Co., Louisiana, Mo.
Detroit Twist Drill Co., Detroit, Mich.
Duffy Manufacturing Co., Chicago, Ill.
Henderer, A. L., & Sons, Wilmington, Del.
Hunter Saw & Machine Co., Pittsburg, Pa.
Ingersoll-Rand Co., New York.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Irvington Mfg. Co., Irvington, N. J.
Johnson, Wm., Firm of, Newark, N. J.
Lovejoy Tool Works, Chicago, Ill.
L. X.—Manufacturers' Belt Hook Co., Chicago, Ill.
Molybdenum—King Pneumatic Tool Co., Chicago, Ill.
National Tool Co., New York, N. Y.
Niagara Machine & Tool Works, Buffalo, N. Y.
Paragon Tool Co., Seattle, Wash.
Peck, Stow & Wilcox Co., Southington, Conn.
Sayre, L. A., Company, Newark, N. J.
V & B—Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Vanadium—Geo. F. Marchant Co., Chicago, Ill.
Verona Tool Works, Pittsburgh, Pa.
Williams, J. H., & Co., Buffalo, N. Y.

SETS, RIVET, PNEUMATIC HAMMER.

Chicago Pneumatic Tool Co., New York, N. Y. "Boyer."
Detroit Twist Drill Co., Detroit, Mich.

SETS, SAW.

Atkins, E. C., & Co., Indianapolis, Ind. (circular and mill).
Bullock Mfg. Associates, Springfield, Mass.
Champion—A. E. White Machine Works, Eau Claire, Wis.
Cincinnati Rubber Mfg. Co., The, Cincinnati, O.
Crowell, D. J., Buffalo, N. Y.
Disston, Henry, & Sons, Inc., Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Gould Products Co., Oakland, Cal. (and gage combined).
Hoe, R., & Co., New York, N. Y.
Johnson, Wm., Firm of, Newark, N. J.
Kilborn & Bishop Co., New Haven, Conn. (Trade names—K. & B., Whiting, Woodman.)
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Peck, Stow & Wilcox Co., Southington, Conn.
Southern Saw Works, Atlanta, Ga.
Smith's—Otis A. Smith Mfg. Co., Rockfall, Conn.
Stanley Rule & Level Co., The, New Britain, Conn.
Stearns & Co., E. C., Syracuse, N. Y.
Taintor Positive—Taintor Mfg. Co., New York, N. Y.
Uniform—J. O. Pettey, Belvidere, Ill.

SETTERS, NUT, ELECTRIC.

Black & Decker Mfg. Co., The, Towson, Md.
Cincinnati Electrical Tool Co., Cincinnati, Ohio.
Electro-Magnetic Tool Co., Chicago, Ill.
U. S. Electrical Tool Co., Cincinnati, O.

SETTERS, NUT, FLEXIBLE SHAFT

Strand, N. A., & Co., Chicago, Ill.

SETTERS, SAW.

Atkins, E. C., & Co., Indianapolis, Ind.
Hamilton Beach—Hamilton Beach Mfg. Co., Racine, Wis. (electric).
Machinery Co. of America, Big Rapids, Mich.
Massachusetts Blower Co., Watertown, Mass.
New Britain Machine Co., New Britain, Conn.
Rogers, Samuel C., & Co., Buffalo, N. Y.
"Trip-Hammer"—Zeiller & Nagel, Brooklyn, N. Y.
Wardwell Mfg. Co., The, Cleveland, O.

SETTERS, STUD, AUTO-OPENING.

Errington Mechanical Laboratory, New York, N. Y.
Geometric—The Geometric Tool Co., New Haven, Conn.
Jarvis, C. L., Co., The, Gildersleeve, Conn.
Magic—Consolidated Machine Tool Corp. of America, New York, N. Y.
Procunier, Wm. L., Chicago, Ill.

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Fig. 290

Fig. 295

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McGookin, D. H., Philadelphia, Pa.
McMillan's, W. H., Sons, New York, N. Y.
Merrill Brothers, Maspeth, New York, N. Y.
Newhall Chain, Forge & Iron Co., New York.
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United States Chain & Forging Co., Pittsburgh, Pa.
Wilcox, Crittenden & Co., Inc., Middletown, Conn.

SHACKLES, WIRE, ROPE.

Broderick & Bascom Rope Co., St. Louis, Mo.
Laughlin, Thos., Co., The, Portland, Me.
Wilcox, Crittenden & Co., Inc., Middletown, Conn.

SHAFTING, FLEXIBLE.

Biax Flexible Shaft Co., New York, N. Y.
Binghamton Flexible Shaft Co., Binghamton, N. Y.
Coates Clipper Mfg. Co., Worcester, Mass.
Cooper—Cooper Flexible Transmission Co., Inc., Brooklyn, N. Y.
Errington Mechanical Laboratory, New York, N. Y.
Fle-x-Met—Breese Metal Hose & Mfg. Co., Newark, N. J.
Gem—Gem Mfg. Co., Pittsburgh, Pa.
Stewart—Chicago Flexible Shaft Co., Chicago, Ill.
Stow Mfg. Co., Binghamton, N. Y.
Strand, N. A., & Co., Chicago, Ill.
Webb—Webb Mfg. Co., Newark, N. J.
White, S. S., Dental Mfg. Co., The, New York, N. Y.

SHAFTING, STEEL.

American Steel & Wire Co., Chicago, Ill.
American Tool & Machine Co., Boston, Mass.
Bliss & Laughlin, Inc., Harvey, Ill.
Bond Foundry & Machine Co., Manheim, Pa.
Brown, A. & F., Co., The, Elizabethport, N. J.
Caldwell, H. W., & Son Co., Chicago, Ill.
Carnegie Steel Co., Pittsburgh, Pa.
Central Steel & Wire Co., Chicago, Ill.
Chain Belt Mfg. Co., Milwaukee, Wis.
Chicago Pulley & Shafting Co., Chicago, Ill.
Christiana Machine Co., Christiana, Pa.
Columbia Steel & Shafting Co., Pittsburg, Pa.
Compressed—Compressed Steel Shafting Co., Boston, Mass.
Cresson-Morris Co., Philadelphia, Pa.
Cumberland Steel Co., Cumberland, Md.
Dodge Mfg. Corp., Mishawaka, Ind.
Eastwood Co., Benjamin, Paterson, N. J.
Fitzsimons Eclipse—The Fitzsimons Co., Youngstown, O.
Frasse, Peter A., & Co., Inc., New York, N. Y.
Golden's Foundry & Machine Co., Columbus, Ga.
Hanson Clutch & Machinery Co., Tiffin, O.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hunter Machine Co., James, North Adams, Mass
Jeffrey Mfg. Co., The, Columbus, O.
Jones & Laughlin Steel Co., Pittsburgh, Pa. "J. & L."
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Kent Machine Co., Kent, O.
Lane & Bodley Co., The, Cincinnati, O.
LaSalle Steel Co., Chicago, Ill.
Link-Belt Company, Chicago and Philadelphia.
Lombard Iron Works & Supply Co., Augusta, Ga.
Medart Company, The, St. Louis, Mo. (turned and polished).
Mesta Machine Co., Pittsburgh, Pa.
Moltrup Steel Products Co., Beaver Falls, Pa.
Nordyke & Marmon Co., Indianapolis, Ind.
Pardee Steel Corp., Perth Amboy, N. J.
Pittsburgh Shafting Co. of Detroit, Detroit, Mich.
Reading Iron Co., Reading, Pa.
Reading Scale & Machine Co., Reading, Pa.
Republic Iron & Steel Co., Youngstown, O.
Royersford Foundry & Machine Co., Philadelphia, Pa.
Schultz, A. L., & Son, Chicago, Ill.
Sellers, William, & Co., Inc., Philadelphia, Pa.
Union Drawn—Union Drawn Steel Co., Beaver Falls, Pa.
Upton & Gilman Machine Co., Lowell, Mass.
Valley Iron Works, Williamsport, Pa.
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wolf Co., The, Chambersburg, Pa.
Wood, T. B., Sons Company, Chambersburg, Pa.

SHANKS, SAW.

Hoe—R. Hoe & Co., New York.

SHAPERS (METALWORKING).

American—The American Tool Works Co., Cincinnati
Brown Engineering Co., Reading, Pa.
Cincinnati Shaper Co., The, Cincinnati, O. (Trade names—Cincinnati Universal, Climax.)
Cochrane-Bly Co., Rochester, N. Y. (vertical die).
Columbia—Manning, Maxwell & Moore, Inc., New York, N. Y.
Coulter—The Automatic Machine Co., Bridgeport, Conn.
Crescent Machine Co., Leetonia, O.
Flather Planer & Shaper Co., Nashua, N. H.
Fox Machine Co., Inc., Jackson, Mich.
Goodspeed—Goodspeed Machine Co., Winchendon, Mass.
Hanson-Whitney Machine Co., The, Hartford, Conn.
Handy Machine Co., The, Torrington, Conn.
High Duty—Gould & Eberhardt, Newark, N. J.
Jones Machine Tool Works, Philadelphia, Pa.
Kelly—R. A. Kelly Co., Xenia, O. (crank).
Milwaukee—Lutter & Giles Co., Milwaukee, Wis.
Milwaukee Shaper Co., Milwaukee, Wis.
Morton Mfg. Co., Muskegon Heights, Mich. (Draw cut and special railway.)
Niles-Bement-Pond Co., New York, N. Y.
Unio Machine Tool Co., The, Kenton, O. "Ohio."
Perkins Machine Co., Warren, Mass. (friction). "Perkins."
Potter & Johnston Machine Co., Pawtucket, R. I.
Queen City Machine Tool Co., Cincinnati, O.
Reed-Prentice Corp., Worcester, Mass.
Rhodes—Rhodes Mfg. Co., Hartford, Conn.
Rockford—Rockford Machine Tool Co., Rockford, Ill
Sellers, Wm., & Co., Inc., Philadelphia, Pa.
Sellew Machine Tool Co., Pawtucket, R. I.
Seneca Falls Machine Co., Seneca Falls, N. Y.
Smith & Mills—The Smith & Mills Co., Cincinnati, O
Springfield Machine Tool Co., Springfield, O.
Stamco—Streine Tool & Mfg. Co., New Bremen, O.
Two-Piece-Crank—Stockbridge Machine Co., Worcester, Mass.
Universal Machine & Tool Co., Canton, O.
Walcott Lathe Co., Jackson, Mich.
Whipp—Whipp Machine Tool Co., Sidney, O.
Whitcomb—Reed-Prentice Co., Worcester, Mass. (portable).

SHAPERS, SAW SWAGE.

Atkins, E. C., & Co., Indianapolis, Ind.
Crowell, D. J., Buffalo, N. Y.
Machinery Company of America, Big Rapids, Mich. "Bolton," "Hanchett," "Ideal," "Pribnow."
White, A. E., Machine Works, Eau Claire, Wis. "Champion."

SHAPERS, WOODWORKING.

(See also "Machinery, Woodworking.")

Advance—New Advance Machinery Co., Van Wert, Ohio.
American Saw Mill Machinery Co., Hackettstown, N. J.
Carter, R. L., Co., Inc., The, Phoenix, N. Y. (hand, electric.)
Crescent Machine Co., Leetonia, O.
Do-All Appliance Co., Chicago, Ill. "Do-All."
Famous—Sidney Machine Tool Co., The, Sidney, O.
Goodspeed Machine Co., Winchendon, Mass.
Ober—Ober Mfg. Co., Chagrin Falls, Ohio.
Superior—Jones Superior Machine Works, Chicago, Ill.
Union—Gallmeyer & Livingston Co., Grand Rapids, Mich. (Portable.)
Whitney—Baxter D. Whitney & Son., Inc., Winchendon, Mass.

SHARPENERS, FILE.

Republic Iron & Steel Co., Youngstown, O.

SHARPENERS, KNIFE AND SHEAR.

Johnson—E. P. Johnson Rule Mfg. Co., Chicago, Ill.
Machinery Company of America, Big Rapids, Mich.
Pike Mfg. Co., Pike, N. H.
Quadriga Mfg. Co., Chicago, Ill.
Rogers, Samuel C., & Co., Buffalo, N. Y.
Sharp-Em-Quick—Leetonia Tool Co., Leetonia, O.

SHARPENERS, ROCK DRILL.

American—Heald Machine Co., Worcester, Mass.
Denver—Denver Rock Drill Mfg. Co., Denver, Colo.
Ingersoll-Rand Co., New York, N. Y.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.

SHARPENERS OR GRINDERS, SAW.

Atkins, E. C., & Co., Indianapolis, Ind.
Armstrong Mfg. Co., Portland, Ore.
Automatic, Berry—O. V. Hooker & Son, St. Johnsbury, Vt.
Clizbe Bros. Mfg. Co., Plymouth, Ind. "Crown."
Cochrane-Bly Co., Rochester, N. Y. (automatic for metal saws).
Covel—Machinery Company of America, Big Rapids, Mich.
Hunter Saw & Machine Co., Pittsburgh, Pa.
Rogers-Buffalo—C. S. Rogers & Co., Buffalo, N. Y.
Wardwell Mfg. Co., The, Cleveland, O.

SHEARS, BELT, RUBBER AND PACKING.

Compton Reliance—W. H. Compton Shear Co., Newark, N. J.
Heinisch, R., Sons Works, Newark, N. J.
National—The National Cutlery Co., Philadelphia, Pa
North Bros. Mfg. Co., Philadelphia, Pa.
Tree Brand—H. Boker & Co., Inc., New York, N. Y.
Watson-Stillman Co., The, New York, N. Y.
J. Wiss & Sons Co., Newark, N. J.

SHEARS, GUILLOTINE.

Covington—Covington Machine Co., Inc., Covington, Va.
Perkins Machine Co., Warren, Mass.

SHEARS, HYDRAULIC.

Bethlehem Steel Co., Bethlehem, Pa.
Chambersburg Engineering Co., Chambersburg, Pa.
Henderer's Sons, A. L., Wilmington, Del.
Mackintosh, Hemphill & Co., Pittsburgh, Pa.
Mesta Machine Co., Pittsburgh, Pa.
Morgan Engineering Co., Alliance, Ohio.
Niles-Bement-Pond Co., New York, N. Y.
United Engineering & Foundry Co., Pittsburg, Pa.
Watson-Stillman Co., New York, N. Y.
Wood & Co., R. D., Philadelphia, Pa.

SHEARS, METAL CUTTING, BELT OR MOTOR DRIVEN

Badger State—Badger State Machine Co., Janesville, Wis.
Beloit—Hendley & Whittemore Co., Beloit, Wis.
Bertsch & Co., Cambridge City, Ind.
Bliss, E. W., Co., Brooklyn, N. Y.
Buffalo Forge Co., Buffalo, N. Y.
Chambersburg Engineering Co., Chambersburg, Pa.
Champion Blower & Forge Co., Lancaster, Pa.
Cleveland—Cleveland Punch & Shear Works Co., Cleveland, O.
Covington Machine Co., Covington, Va.
Doelger & Kirsten, Milwaukee, Wis.
Dowd, R. J., Knife Works, Beloit, Wis. (knives).
Erie—Erie Foundry Co., Erie, Pa.
Excelsior Tool & Mach. Co., East St. Louis, Ill. "Excelsior."
Ferracute Machine Co., Bridgeton, N. J.
Heartley Machine, Variety Iron & Tool Works, Toledo, O.
Helwig Mfg. Co., St. Paul, Minn. (pneumatic).
Hilles & Jones—Consolidated Machine Tool Corp. of Amer., New York, N. Y.
Hinman, D. A., & Co., Sandwich, Ill. "Hinman."
Leiman Bros., New York, N. Y.
Little Giant—Danville Iron & Steel Corp., Danville, Pa.
Massillon Foundry & Machine Co., The, Massillon, O.
McCabe, J. J., Lathe & Machy. Corp., New York, N. Y.
Mesta—Mesta Machine Co., Pittsburgh, Pa.
Morgan Engineering Co., Alliance, O.
Niagara Machine & Tool Works, Buffalo, N. Y.
Niles-Bement-Pond Co., New York, N. Y.
Ohl—Geo. A. Ohl & Co., Newark, N. J.
Pacific Machine Tool Co., Los Angeles, Cal.
Pels, Henry, & Co., New York, N. Y.
Quickwork Co., The, St. Marys, Ohio. (Circle, double plate and sheet mill, heavy boiler plate, sheet metal, splitting, bar and plate, beveling, slitting, rotary, rotary circle, rotary slitting.)
Robinson, J. M., Mfg. Co., The, Cincinnati, O.
Rock River Machine Co., Janesville, Wis.
Roe—Glasgow Iron Co., Pottstown, Pa.
Royersford Foundry & Machine Co., Royersford, Pa. "Excelsior."
Schatz Mfg. Co., The, Poughkeepsie, N. Y.
Stamco—Streine Tool & Mfg. Co., New Bremen, O.
Stoll, D. H., Co., Buffalo, N. Y.
Thomas Spacing Machine Co., Pittsburg, Pa.
Toledo—The Toledo Machine & Tool Co., Toledo, O
Unishear—The Unishear Co., Inc., New York, N. Y.
United Engineering & Foundry Co., Pittsburgh, Pa.
Verson—La Salle Machine Works, Chicago, Ill.
Wheeling Mold & Foundry Co., Wheeling, W. Va.
Youngstown Foundry & Machine Co., Youngstown, O.

SHEARS, METAL CUTTING, HAND AND FOOT POWER.

Adriance Machine Works, Inc., Brooklyn, N. Y.
Badger—Rock River Machine Co., Janesville, Wis.
Badger State Machine Works, Beloit, Wis. (Alligator angle iron, bench splitting.) "Badger State."
Bartlett—Bartlett Mfg. Co., Detroit, Mich.
Beatty Machine & Mfg. Co., Hammond, Ind.
Bellefonte Engineering Co., Bellefonte, Pa.
The Bench—The Bench Machine Tool Co., Philadelphia, Pa.
Bliss, E. W. Co., Brooklyn, N. Y.
Buffalo Forge Co., Buffalo, N. Y.
Canton Foundry & Machine Co., Canton, O.
Champion Blower & Forge Co., Lancaster, Pa.
Clough, R. M., Meriden, Conn.
Eclipse—Geo. C. Christopher & Son., Wichita, Kan.
Erie—Erie Foundry Co., Erie, Pa.
Excelsior—Excelsior Tool & Mach. Co., East St. Louis, Ill.
Goodell-Pratt Co., Greenfield, Mass.
Heartley Machine, Variety Iron & Tool Works, Toledo, Ohio.
Hendley & Whittemore Co., Beloit, Wis. "Beloit."
Hercules—W. P. & C. F. Tucker, Hartford, Conn.
Hilles & Jones—Consolidated Machine Tool Corp. of America. New York, N. Y.
Hinman, D. A., & Co., Sandwich, Ill. "Hinman."
Imperial Machine Co., Minneapolis, Minn. "Clipper."
Kane & Roach, Syracuse, N. Y.
Kerrihard Co., The, Red Oak, Iowa.
Little Blacksmith—Kidder Mfg. Co., J. F., Burlington, Vt.
Little Giant—Little Giant Punch & Shear Co., Sparta, Illinois.
Little Giant—W. D. Mohn & Co., Reading, Pa.
Lyon—Lyon, Conklin & Co., Inc., Baltimore, Md.
Marshalltown—Marshalltown Mfg. Co., Marshalltown, Iowa.
Marvel—Armstrong-Blum Co., Chicago, Ill.
Mesta Machine Co., Pittsburgh, Pa.
Niagara Machine & Tool Works, Buffalo, N. Y.
Ohl—Geo. A. Ohl & Co., Newark, N. J.
Oliver Mfg. Co., The W. W., Buffalo, N. Y
Pacific Machine Tool Co., Los Angeles, Cal.
Pels—Henry Pels & Co., New York, N. Y.
Plymouth—Plymouth Foundry & Machine Co., Plymouth, Wis.
Porter, H. K., Inc., Everett, Mass.
Quickwork Co., The, St. Marys, O. (Irregular cutting.)
Robinson, J. M., Mfg. Co., Cincinnati, Ohio.
Schatz Mfg. Co., Poughkeepsie, N. Y.
Stamco—Streine Tool & Mfg. Co., New Bremen, O.
Stoll, D. H., Co., Inc., Buffalo, N. Y.
Thomas Spacing Machine Co., Pittsburgh, Pa.
Union—Union Mfg. Co., New Britain, Conn.
United Engineering & Foundry Co., Pittsburg, Pa.
Victor—Novelty Iron Works Co., Dyersville, Ia.
Viking—Viking Shear Co., Inc., Erie, Pa.
Wheeling Mold & Foundry Co., Wheeling, W. Va.
Whitney—W. A. Whitney Mfg. Co., Rockford, Ill.
Whitney—Whitney Metal Tool Co., Rockford, Ill.
Williams, White & Co., Moline, Ill.
Winner—Imperial Machine Co., Minneapolis, Minn.

SHEARS, METAL CUTTING, ROTARY.

Bliss, E. W. Co., Brooklyn, N. Y.
Cleveland—Buckeye Engine Co., Salem, O.
Garrison, A., Foundry Co., Pittsburgh, Pa.
Heartley Machine, Variety Iron & Tool Works, Toledo, Ohio.
Hilles & Jones—Consolidated Machine Tool Corp. of America, New York, N. Y.
Marshalltown—Marshalltown Mfg. Co., Marshalltown, Iowa.
Niagara Machine Tool Works, Buffalo, N. Y.
Ohl—Geo. A. Ohl & Co., Newark, N. J.
Quickwork Co., The, St. Marys, O.
Rapid—Otis L. Fuller, Goshen, Ind.
Schatz Mfg. Co., The, Poughkeepsie, N. Y.
Stoll, D. H., Co., Inc., Buffalo, N. Y.
Thomas Spacing Machine Co., Pittsburgh, Pa.
Yoder—The Yoder Co., Cleveland, O.

SHEARS, SPLITTING, POWER (BOILERMAKERS').

Armstrong-Blum Mfg. Co., Chicago, Ill.
Badger State—Badger State Machine Works, Beloit, Wis.
Badger—Rock River Machine Works, Janesville, Wis.
Beloit—Hendley & Whittemore Co., Beloit, Wis.
Heartley Machine, Variety Iron & Tool Works, Toledo, Ohio.
Marshalltown—Marshalltown Mfg. Co., Marshalltown, Iowa.
Quickwork Co., The, St. Marys, O.

SHEAVES, ROPE, POWER TRANSMISSION.

American Foundry & Mfg. Co., St. Louis, Mo.
American—American Hoist & Derrick Co., St. Paul, Minn. (wire).
Barnard & Leas Mfg. Co., Moline, Ill.
Bass Foundry & Machine Co., The, Fort Wayne, Ind
Boyts, Porter Co., Connellsville, Pa.
Brown, A. & F., Co., Elizabethport, N. J.
Caldwell, H. W., & Son Co., Chicago, Ill.
Chicago Pulley & Shafting Co., Chicago, Ill.
Christiana Machine Co., Christiana, Pa.
Connellsville Machine & Car Co., Connellsville, Pa.
Crawford & McCrimmon Co., Brazil, Ind.
Cresson-Morris Co., Philadelphia, Pa
Danville—Robt. Holmes & Bros., Inc., Danville, Ill.
Diamond Machine Co., Monongahela Pa.
Dodge Mfg. Corp., Mishawaka, Ind.
Fair Haven Foundry & Machine Co., Fair Haven, Vt
Falls Clutch & Machinery Co., Kent, O.
Fischer & Hayes Rope & Steel Co., Chicago, Ill.
Golden's Foundry & Machine Co., Columbus, Ga.
Great Western Mfg. Co., Leavenworth, Kan.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Lake Shore Engine Works, Marquette, Mich
Link-Belt Company, Chicago and Philadelphia, Pa.
Litchfield Foundry & Machine Co., Litchfield, Ill.
Medart—The Medart Company, St. Louis, Mo.
Mesta—Mesta Machine Co., Pittsburgh, Pa
Montgomery Coal Washing & Mfg. Co Birmingham, Ala.
Nordyke & Marmon Co., Indianapolis, Ind.
Ohio Valley Pulley Works, Inc., Maysville, Ky.
Ottumwa Iron Works, Ottumwa, Ia.
Peco—Pittsburgh Engineering Co., Jeannette, Pa.
Pyott Foundry Co., Chicago, Ill.
Reeves Pulley Co., Columbus, Ind. "The Reeves."
Stephens-Adamson Mfg. Co., Aurora, Ill.
Transmission Ball Bearing Co., Buffalo, N. Y. (ball-bearing).
Webster Mfg. Co., Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wood, T. B., Sons Company, Chambersburg, Pa.

SHEAVES, TACKLE BLOCK.

American Foundry & Mfg. Co., St. Louis, Mo.
Anvil—Western Block Co., Lockport, N. Y.
Broderick & Bascom Rope Co., St. Louis, Mo.
Cleveland Block Co., Cleveland, O.
Clyde Iron Works, Duluth, Minn.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Harris & Reed Mfg. Co., Chicago, Ill. (ball bearing).
Hasco—H. A. Stiles & Co., Boston, Mass.
Hercules Forge Co., Indianapolis, Ind.
Howard Iron Works, Buffalo, N. Y.
J. & L.—Jones & Laughlin Steel Co., Pittsburgh, Pa.
Laughlin, Thomas, Co., The, Portland, Me.
McMillan's Sons, W. H., New York, N. Y.
Leach Company, The, Oshkosh, Wis.
Red Face—Pyott Foundry Co., Chicago, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Torry Roller Bushing Works, Bath, Me.
Western Block Co., Lockport, N. Y.
Wilcox, Crittenden & Co., Inc., Middletown, Conn.

SHEAVES, WIRE AND MANILA ROPE.

Caldwell, H. W., & Son Co., Chicago, Ill.
Hill Clutch Machine & Foundry Co., The, Cleveland, O.
Link-Belt Co., Chicago and Philadelphia.
Medart Company, St. Louis, Mo.
Torrey, Roller Bushing Works, Bath, Maine.
Wilcox, Crittenden & Co., Inc., Middletown, Conn.
Wood, T. B., Sons Company, Chambersburg, Pa.

SHELF AND BRACKET, SINK PUMP.

American Foundry & Mfg. Co., St. Louis, Mo.
Barnes Mfg. Co., The, Mansfield, O.

SHELLS, EXPANSION DRILL.

Phillips Drill Co., Chicago, Ill.

SHELLS, FEED, FOR AUTOMATIC SCREW MACHINE.

Lubenow Mfg. Co., Milwaukee, Wis.

SHELVES, GLASS.

Acme Specialty Mfg. Co., The, Toledo, O.
American Brass Novelty Co., Grand Haven, Mich.
Art Brass Co., New York, N. Y.
Bache, Semon, & Co., New York, N. Y.
Bay Ridge Specialty Co., Inc., Trenton, N. J.
Brasscrafters—J. P. Eustis Mfg. Co., Boston, Mass.
Central Specialty Mfg. Co., Chicago, Ill.
Doerco—Doerr Glass Co., Vineland, N. J.
Easy Set—J. H. Balmer Co., Newark, N. J.
Galard Co., The, Newark, N. J.
Garrison-Heiland Corp., New York, N. Y.
Hart Mirror Plate Co., Grand Rapids, Mich.
Mott, J. L., Iron Works, The, Trenton, N. J.
Nurre Mirror Plate Co., The, Bloomington, Ind.
Sani-Onyx—Sani-Products Co., Chicago, Ill.
Searls Mfg. Co., Newark, N. J.
Silver & Co., Brooklyn, N. Y.
Smith, E. C., Mfg. Co., Chicago, Ill.
Sno-Wite—American Enameled Products Co., Chicago, Ill.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Woodward-Wanger Co., Philadelphia, Pa.

SHELVES, OPAL.

Bache, Semon, & Co., New York, N. Y.
Easy Set—J. H. Balmer Co., Newark, N. J.
Russell, John M., Mfg. Co., Naugatuck, Conn.
Superior Brass Novelty Co., New York, N. Y.

SHELVING, STEEL, SHOP AND WAREHOUSE.

Art Metal—Amco—Art Metal Construction Co., Inc., Jamestown, N. Y.
Berloy—The Berger Mfg. Co., Canton, O.
Betz, Frank S., Co., Hammond, Ind.
Canton Art Metal Co., Canton, O.
Cleveland Wire Spring Co., Cleveland, O.
Dexter Metal Mfg. Co., Camden, N. J.
Durand Steel Locker Co., Chicago, Ill.
Federal—Federal Steel Fixture Co., Chicago, Ill.
Fouts, C. C., Co., The, Middletown, O.
G. F. Allsteel—The General Fireproofing Co., Youngstown, O.
H. H.—Hart & Hutchinson Co., New Britain, Conn.
Jefferis, Richard W., Co., Camden, N. J. "Jefferis."
Lupton—David Lupton's Sons Co., Philadelphia, Pa.
Lyon—Lyon Metallic Mfg. Co., Aurora, Ill.
Meeco—Manufacturing Equipment & Engineering Co., Framingham, Mass
Medart, Fred, Mfg. Co., St. Louis, Mo.
Mills Co., The, Cleveland, O.
National Adjustable—National Scale Co., Chicopee Falls, Mass.
New Britain Machine Co., New Britain, Conn.
Ohio Mfg. Co., Painesville, O.
Pen-Dar—Darby Steel Equipment Co., Philadelphia, Pa.
Terrell's Equipment Co., Grand Rapids, Mich. "Terrell's."
Van Dorn Iron Works Co., The, Cleveland, O.

SHIELDS, EXPANSION.

Barrett Sales Co., The, Chicago, Ill. (Trade names—Barrett, Biflex.)
Springfield Expansion Shield Co., Springfield, Mass. "Springfield."
Star Expansion Bolt Co., New York, N. Y. (Trade names—Dryvin, Loxin.)
Van Expansion Bolt Mfg. Co., Chicago, Ill.

SHIELDS, EYE.

(See also "Protectors, Eye and Face.")
Acme—Chicago Eye Shield Co., Chicago, Ill.

SHIELDS, GAGE GLASS.

(See also "Protectors" and "Glass Preservers, Gage.")
Keckley, O. C., Company, Chicago, Ill. "S. S. P."

SHIELDS, HAND, WELDERS.

Chicago Eye Shield Co., Chicago, Ill.
Electric Arc Cutting & Welding Co., Newark, N. J.
Ideal Face Shield Co., The, Columbus, O.

Meco—Modern Engineering Co., St. Louis, Mo.
Weldit—Weldit Acetylene Co., Detroit, Mich.
Wilson—Wilson Welder & Metals Co., Inc., Hoboken, N. J.

SHIELDS, COVERS AND CABINETS, RADIATOR.

Acme Radiator Shield Co., Chicago, Ill.
Acme—W. H. Johnson & Son Co., Indianapolis, Ind.
America—America Heating & Supply Co., Rockford, Ill.
Capitol Triton—U. S. Radiator Corp., Detroit, Mich.
Dixie Metal Products Co., Birmingham, Ala.
Foster Sheet Metal Co., Springfield, Ill.
Geuder, Paschke & Frey Co., Milwaukee, Wis.
Hawks—Hugo Mfg. Co., West Duluth, Minn.
Humidiator—Art Metal Products Co., Chicago, Ill.
Ideal—American Radiator Co., New York, N. Y.
Kirk & Blum Mfg. Co., Cincinnati, O.
Landon Radiator Co., Inc., No. Tonawanda, N. Y.
McCain Clothes Dryer Co., Indianapolis, Ind. "Hawkins."
Monash-Younker Co., Chicago, Ill. (Trade names—Dixon, Monash, Star.)
Mullins Body Corp., Salem, Ohio.
National Radiator Co., Johnstown, Pa.
Prentice, L. H., & Co., Chicago, Ill.
Royal—U. S. Radiator Corp., Detroit, Mich.
Shipp, C. C., & Co., Indianapolis, Ind.
Shapco—Sodemann Heat & Power Co., St. Louis, Mo.
Slyker—Schleicher, Inc., Chicago, Ill.
Therm-O-Flector—The J. D. Gerken Co., Toledo, O.
Thomas & Armstrong Co., Dayton, O.
Trico—Art Metal Radiator Cover Co., Chicago, Ill.
Van Dorn Iron Works Co., The, Cleveland, O.

SHOWERS, PORTABLE.

(See "Baths, Shower, Portable.")

SHIFTERS, BELT.

(See also "Countershafts.")

Artisan Mfg. Co., Cincinnati, Ohio.
Barry—Barry Co., Muscatine, Iowa.
Barry—R. & J. Dick Co., Inc., Passaic, N. J.
Builders Iron Foundry Co., Providence, R. I.
Chain Belt Co., Milwaukee, Wis.
Chicago—Chicago Pulley & Shafting Co., Chicago, Ill.
Dodge Mfg. Corp., Mishawaka, Ind.
Grammes, L. F., & Sons, Allentown, Pa.
Hagan, L. T., Winchester, Ky.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Howe Safety Appliance Co., Granite City, Ill.
K-C—Kremer-Cummins Machine Co., The, Cleveland, Ohio.
Kleckler—Keuka Industries, Inc., Hammondsport, N. Y.
Le Blond—R. K. Le Blond Machine Tool Co., Cincinnati, O.
Mason—Mason Regulator Co., Boston, Mass.
Naylor Bros., Peekskill, N. Y.
Prescott Co., The, Menominee, Mich.
Reznor Mfg. Co., Mercer, Pa. (for cone pulley).
Simplex, Sim-Pull, Heavy Sim Plex—Rhode Island Warp Stop Equipment Co., Pawtucket, R. I.
Spurgin—R. G. Haskins Co., Chicago, Ill.
Wood, T. B., Sons Company, Chambersburg, Pa.

SHIMS, LAMINATED, BRASS AND COPPER.

Dallas Brass & Copper Co., Chicago, Ill.
Laminum—Laminated Shim Co., Inc., Long Island City, N. Y.
Phoenix Specialty Mfg. Co., New York, N. Y.
Victor Manufacturing & Gasket Co., Chicago, Ill. (also stock).

SHOES, LADDER, SAFETY.

Grammes, L. F., & Sons, Allentown, Pa.
M-S-A—Mine Safety Appliances Co., Pittsburgh, Pa.
Queen—Harker Mfg. Co., Cincinnati, O.
Safety Equipment Service Co., The, Cleveland, O.
Safety Stair Tread Co., The, Wooster, O. "Fit-All."
U. S. Safety Appliance Corp., The, Cleveland, O.

SHOES, PIPE.

St. Louis Malleable Casting Co., St. Louis, Mo.

SHOES, SHAFT HANGER.

Wood, T. B., Sons Company, Chambersburg, Pa.

SHOES, WORKMEN'S PROTECTIVE.

Safety First Shoe Co., Boston, Mass.

SHOT, GRIT, AND IRON SAND.

Globe—The Globe Iron-Crush & Shot Co., Mansfield, O.
Sampson—Pittsburgh Crushed Steel Co., Pittsburgh, Pa.

SHOVELS AND FORKS, CONCRETE.

Conneaut—Conneaut Shovel Co., Conneaut, Ohio.
Fischer & Hayes Rope & Steel Co., Chicago, Ill.
Sackett, H. B., Screen & Chute Co., Chicago, Ill.

SHOVELS, POWER, FOR UNLOADING CARS.

Caldwell, H. W., & Son Co., Chicago, Ill.
Link-Belt Company, Chicago and Philadelphia.
Stephens-Adamson Mfg. Co., Aurora, Ill. "S.-A."
Weller Mfg. Co., Chicago, Ill.

SHOVELS, SCOOPS AND SPADES.

Ames, Oliver, & Sons, North Easton, Mass.
Ames Shovel & Tool Co., Boston, Mass.
Baldwin Tool Works, Parkersburg, W. Va. (Trade names—Baldwin Dollar, Knoxall, Monongah Featherweight, Optimus, Pinnacle, Semper Idem, Vanadium.)
Beall Bros., Alton, Ill.
Collins Company, The, Collinsville, Conn.
Conneaut Shovel Co., The, Conneaut, Ohio, (special shovels only).
Estes, E. B., & Sons, New York, N. Y.
Hubbard & Co., Pittsburgh, Pa.
Indiana Rolling Mill Co., Newcastle, Ind.
Iwan Bros., South Bend, Ind.
Kohler, F. E., & Co., Canton, O.
Osborn Mfg. Co., Cleveland, O.
Pittsburgh Shovel Co., The, Pittsburgh, Pa.
Skelton Shovel Co., Inc., Dunkirk, N. Y. (Trade names—Bantam, Bull Dog, Fox.) Sales agents, J. C. McCarty Co., 29 Murray St., New York, N. Y.
Union Shovel Works, Inc., Tyrone, Pa. (Trade names—Arrow Head, Juniata, Monarch, Portage, Star, Vulcan.)
Wood Shovel & Tool Co., Piqua, O. Trade names—Molybdenum, Piqua, Stuart, Wilson, Wood.)
Wyoming Shovel Works, The, Wyoming, Pa. "Wyoming Red Edge."

SHOVELS AND SPOONS, TELEGRAPH.

Pittsburgh Shovel Co., The, Pittsburgh, Pa. (Trade names—Armstrong, Coal Bluff, Kiski, Leechburg, Pacemaker, Shuster.)

SHRINKERS, TIRE.

Buffalo Forge Co., Buffalo, N. Y.
Champion Blower & Forge Co., Lancaster, Pa. (Trade names—American, Champion, Lancaster, Star.)
C.-O.—Canedy-Otto Mfg. Co., Chicago Heights, Ill.
Hauck Mfg. Co., Brooklyn, N. Y.
Heartley Machine, Variety Iron & Tool Works, Toledo, Ohio.
Mole—American Scale Co., Kansas City, Mo.
Southern Skein & Foundry Co., Chattanooga, Tenn.
West—The West Tire Setter Co., Rochester, N. Y.

SHUTOFFS, GAGE GLASS, AUTOMATIC.

Breakey—L. I. Breakey, Marshall, Mich.

SIGHT FEEDS, OIL, INDEPENDENT.

Essex Brass Corp., Detroit, Mich.
Michigan Lubricator Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, O.
Warrior—D. T. Williams Valve Co., Cincinnati, O.

SIGNALS, FIRE ALARM.

Brown, A. & F., Co., The, Elizabethport, N. J.
Reiter, G. C., Canton, O.
Union Water Meter Co., Worcester, Mass.

SIGNALS, FIRE EXTINGUISHER RECHARGE.

Diener, Geo. W., Mfg. Co., Chicago, Ill.

SIGNALS AND CALLING SYSTEMS, INDUSTRIAL.

National Scale Co., Chicopee Falls, Mass.
Pettes & Randall Co., New York, N. Y. (Trade names—P. & R., Tel-Auto-Call.)
Reiter, G. C., Canton, O.
Sterling—The Sterling Siren Fire Alarm Co., Inc., Rochester, N. Y.
Strombos—Mine Safety Appliance Co., Pittsburgh, Pa.
Toots-E—C. M. Lovsted & Co., Seattle, Wash.
T. S.—The Thomas-Smith Co., Canton, O.

SIGNS, BRASS, BRONZE AND COPPER.

Fries & Co., Buffalo, N. Y.
Grammes, L. F., & Sons, Allentown, Pa.
Leonard Engraving Works, Chicago, Ill.
Matthews & Co., Jas. H., Pittsburgh, Pa.
Moss, Henry, & Co., Inc., New York, N. Y. "Markwell."
Newman Mfg. Co., Cincinnati, O.

SIGNS, DANGER.

Behringer, Edward A., New York, N. Y.
Ingram-Richardson Mfg. Co., Beaver Falls, Pa.
Matthews & Co., Jas. H., Pittsburgh, Pa.
M-S-A—Mine Safety Appliances Co., Pittsburgh, Pa.
Queen—Harker Mfg. Co., Cincinnati, O.
Ready-Made Sign Co., New York, N. Y.
Safety Equipment Service Co., The, Cleveland, O.
Shannon, J. J., & Co., Philadelphia, Pa. "Shannon."
Standard Safety Equipment Co., Chicago, Ill.
Stonehouse Steel Sign Co., Denver, Colo. "Stonehouse Standard Stock Signs."

SINKS, ARTIFICIAL STONE, CEMENT AND CONCRETE.

Acme Granolithic Co., Boston, Mass.
Atlas Wash Tray Co., New Haven, Conn.
Buffalo Wash Tray Works, Inc., Buffalo, N. Y.
Chicago Granitine Mfg. Co., Chicago, Ill. (Trade names—Ajax, Princess.)
Wesely, Chas., Co., Chicago, Ill.

SINKS, CAST IRON, PLAIN AND GALVANIZED.

American Foundry & Mfg. Co., St. Louis, Mo.
Barnes Mfg. Co., The, Mansfield, O.
Bignall Co., The, Medina, N. Y.
Clark, Henry N., Co., Boston, Mass.
Crane Co., Chicago, Ill.
Demerest—Central Foundry Co., New York, N. Y.
Glenn Mfg. Co., St. Charles, Ill.
Humphryes Mfg. Co., The, Mansfield, O.
Illinois Malleable Iron Co., Chicago, Ill.
Mott, J. L., Iron Works, Trenton, N. J.
Olmstead, A. E., & Sons, Pulaski, N. Y.
Portland Stove Foundry Co., Portland, Me. (Trade names—Atlantic, Clover Leaf.)
Rumsey Pump Co., Limited, Seneca Falls, N. Y.
Salem Brass & Iron Mfg. Co., Bridgeton, N. J.
Sanitary Company of America, Linfield, Pa.
Swett, A. L., Iron Works, Medina, N. Y.
Treaty Co., The, Greenville, Ohio.
Walworth Company, Boston, Mass.
Wolff Mfg. Corp., Chicago, Ill.

SINKS, COPPER, NICKEL SILVER, AND WHITE METAL.

Albuco—Alan R. H. Burk Mfg. Co., Philadelphia, Pa.
Badger, E. B., & Sons Co., Boston, Mass.
C. & S.—Christ & Schilken Co., Pittsburgh, Pa.
Clover—J. C. Eichman Mfg. Co., Baltimore, Md.
Clow, James B., & Sons, Chicago, Ill.
Conemaugh Iron Works, Latrobe, Pa.
Elco—Litterer Bros. Mfg. Co., Chicago, Ill.
Elkay Mfg. Co., Chicago, Ill.
Gerstein Bros. & Cooper, South Boston, Mass.
Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Mott, J. L., Iron Works, Trenton, N. J. (Trade names—Dreadnaught, Pelham, Plymouth, Puritan, Putnam, Winchester.)
Philadelphia Sheet Metal & Wood Works, Philadelphia, Pa.

SINKS, DISHWASHER.

Walker Dishwasher Corp., Syracuse, N. Y.

SINK AND LAUNDRY TRAY COMBINED.

Chicago Granitine Mfg. Co., Chicago, Ill.
Kohler Co., Kohler, Wis.
Wesely, Chas., Co., Chicago, Ill.
Woodbridge—Woodbridge Ceramic Corp., Woodbridge, N. J.

SINK AND LAVATORY COMBINED.

Utillis—The J. L. Mott Iron Works, Trenton, N. J.

SINKS, PANTRY.

Albuco—Alan R. H. Burk Mfg. Co., Philadelphia, Pa.
Badger, E. B., & Sons Co., Boston, Bass. (copper and nickel silver).
Camden Pottery Co., Camden, N. J.
Concord Woodworking Co., Concord, N. H.
Elkay Mfg. Co., Chicago, Ill. (copper).
Eureka—Cochran, Drugan & Co., Trenton, N. J.
Federal-Huber Co., Chicago, Ill.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Litterer Bros. Mfg. Co., Chicago, Ill.
Maddock's Thos., Sons Co., Trenton, N. J.
Monument Pottery Co., Trenton, N. J.
Mott, J. L., Iron Works, Trenton, N. J. (Trade names—Beekman, Brunswick, Economic, Pelham, Pennington, Puritan, Pierrepont, Proctor, Plymouth, Putnam, Winchester.)
Philadelphia Sheet Metal & Wood Works, The, Philadelphia, Pa. (copper and silver).
Sesco—The Sanitary Earthenware Specialty Co., Trenton, N. J.
Tepeco—Trenton Potteries Co., Trenton, N. J.
Trageser, John, Steam Copper Works, New York, N. Y.

SINKS, PETRIUM.

Petrium Sanitary Sink Co., Berkeley, Cal.

SINKS, PORCELAIN AND VITREOUS CHINA.

Abingdon Sanitary Mfg. Co., Abingdon, Ill.
Avon—Wheeling Sanitary Mfg. Co., Wheeling, W. Va.
Camden Pottery Co., Camden, N. J.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill. (Trade names—Beverly, Chateau, Cottage, Essex, Integral, Kent, Kitchnet, Manor, Surrey, Touraine, Villa.)
Eclipse—Fleck Bros. Co., Philadelphia, Pa.
Eljer Co., Ford City, Pa. (Trade names—Chemical Sink, Domestic Science, Slop.)
Eureka—Cochran, Drugan & Co., Trenton, N. J.
Douglas, John, Co., Cincinnati, O.
Federal-Huber Co., Chicago, Ill.
Ford's Porcelain Works, Perth Amboy, N. J.
General Ceramics Co., New York, N. Y.
German-American Stoneware Works, New York, N. Y.
Lambertville Pottery Co., Lambertville, N. J.
Maddock's, Thos., & Sons Co., Trenton, N. J. (Trade names—Madiator, Madagon, Madwin, Madevlan, Porsink, Podrain, Porpan.)
Monument Pottery Co., Trenton, N. J.
Monarch—Wolff Mfg. Corp., Chicago, Ill.
Mott, J. L., Iron Works, Trenton, N. J. (Trade names—Barrington, Hale, Pierrepont, Rocona, Allston, Ashland, St. Regis, Dover.)
Perfection—American Porcelain Co., New Brighton, Pa.
Saxon—J. D. Johnson Co., Philadelphia, Pa.
Sanitas Mfg. Co., Boston, Mass.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Trenton Potteries Co., Trenton, N. J. (Trade names—Continental, Ideal, Tepeco.)
Walworth Company, Boston, Mass.

SINKS, PORCELAIN ENAMELED.

American Enamel Mfg. Corp., Elizabeth, N. J.
Avon—Wheeling Sanitary Mfg. Co., Wheeling, W. Va.
Barnes Mfg. Co., The, Mansfield, O.
Bryant—The Peck Bros. & Co., New Haven, Conn.
Clow, James B., & Sons, Chicago, Ill.
Cobaltum—Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Columbia Sanitary Mfg. Co., Louisville, Ky.
Conemaugh Iron Works Co., Latrobe, Pa.
Crane Co., Chicago, Ill.
Eddy-Sink—American Die Casting & Pattern Co., Columbus, O.
Federal-Huber Co., Chicago, Ill.
Help-Her—Improved Sanitary Fixture Co., Los Angeles, Cal. (with waste separator).
Iron City Sanitary Mfg. Co., Pittsburgh, Pa.
Jones Hollow Ware Co., Baltimore, Md.
Kohler Co., Kohler, Wis.
Mott, J. L., Iron Works, Newark, N. J. (Trade names—Beekman, Belgrade, Burnside.)
National Sanitary Company, The, Salem, O.
Nelson, N. O., Mfg. Co., St. Louis, Mo.
Richmond Radiator Co., New York.
Rundle Mfg. Co., Milwaukee, Wis.
Sanitas Mfg. Co., Boston, Mass.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
United States Sanitary Mfg. Co., Pittsburgh, Pa.
Virginia—Union Sanitary Works, Noblesville, Ind.
Washington Iron Works, Los Angeles, Cal.
Weiskittel, A., & Son Co., Baltimore, Md.
White Beauty—The Humphryes Mfg. Co., Mansfield, Ohio.
Wolff Mfg. Corp., Chicago, Ill. (Trade names—Crown, Rialto, Wolff's.)

SINKS, SCULLERY OR VEGETABLE.

Acme—W. H. Johnson & Son Co., Indianapolis, Ind.
Crane Co., Chicago, Ill.
Elkay Mfg. Co., Chicago, Ill.
Federal-Huber Co., Chicago, Ill.
Koven, L. O., & Bro., Jersey City, N. J.
Litterer Bros. Mfg. Co., Chicago, Ill.
Muir—The J. L. Mott Iron Works, Trenton, N. J.
Tepeco—Trenton Potteries Co., Trenton, N. J.

SINKS, SLATE.

Alberene Stone Co., New York, N. Y.
Bangor Quarry Co., Bangor, Pa.
Butler, Philip H., & Son Co., Somerville, Mass.
Clow, James B., & Sons, Chicago, Ill.
Euclid Mfg. Co., Paden City, W. Va.
East Bangor Consolidated Slate Co., The, East Bangor, Pa.

Fair Haven Marble & Marbleized Slate Co., Fair Haven, Vt.
Federal-Huber Co., Chicago, Ill.
Keenan Structural Slate Co., Bangor, Pa.
McConnell Slate Co., Brooklyn, N. Y.
Nelson, N. O., Marble Works, Edwardsville, Ill.
Nustone Products Corp., New York, N. Y.
Pennsylvania Structural Slate Co., Easton, Pa.
Penrhyn Slate Co., The, Middle Granville, N. Y.
Structural Slate Co., Pen Argyl, Pa.
Woodley Slate Co., Bangor, Pa.

SINKS, SLOP.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
Avon—Wheeling Sanitary Mfg. Co., Wheeling, W. Va.
Barnes Mfg. Co., The, Mansfield, O.
Bignall Co., The, Medina, N. Y.
Casey-Hedges Co., Chattanooga, Tenn.
Chicago Pottery Co., Chicago, Ill.
Clark, Henry N., Co., Boston, Mass.
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
Eljer Co., Ford City, Pa. (siphon jet).
Eureka—Cochran, Drugan & Co., Trenton, N. J.
Federal-Huber Co., Chicago, Ill.
Foran Foundry & Mfg. Co., Flemington, N. J.
Ford's Porcelain Works, Perth Amboy, N. J.
Glenn Mfg. Co., St. Charles, Ill.
Iron City Sanitary Mfg. Co., Pittsburgh, Pa.
Jones Hollow Ware Co., Baltimore, Md.
Kohler Co., Kohler, Wis.
Kupferle, John C., Foundry Co., St. Louis, Mo.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Maddock's Sons Co., Thos., Trenton, N. J. (Trade names—Madagon, Madiator, Madwin.)
Modern Iron Works, Quincy, Ill.
Monument Pottery Co., Trenton, N. J.
Mott, J. L., Iron Works, Trenton, N. J. (Trade names—Astoria, Atlanta, Hanover, Raleigh, Ralston, Randolph, Rexmore, Richmond, Roanoke, Touro.)
Rundle Mfg. Co., Milwaukee, Wis.
Rundle-Spence Mfg. Co., Milwaukee, Wis.
Salem Brass & Iron Mfg. Co., Bridgeton, N. J.
Sanitary Company of America, Linfield, Pa.
Sanitas Mfg. Co., Boston, Mass.
Sesco—Sanitary Earthenware Specialty Co., Trenton, N. J.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Southern Beauty—Crane Enamelware Co., Chattanooga, Tenn.
Swett, A. L., Iron Works, Medina, N. Y.
Treaty Co., The, Greenville, O.
Trenton Potteries Co., Trenton, N. J. (Trade names—Continental, Ideal, Tepeco, Two Fired.)
United States Sanitary Mfg. Co., Pittsburgh, Pa.
Walworth Company, Boston, Mass.
Weiskittel, A., & Son Co., Baltimore, Md.
White Beauty—The Humphryes Mfg. Co., Mansfield, Ohio.
Wolff Mfg. Corp., Chicago, Ill. (Trade names—Monarch, Wolff's.)

SINKS, STEEL.

Cleveland Blow Pipe Mfg. Co., Cleveland, O.
Diamond—Wolff Mfg. Corp., Chicago, Ill.
Elkay Mfg. Co., Chicago, Ill.
Koven, L. O., & Bro., Jersey City, N. J.
Lalance & Grosjean Mfg. Co., New York City.
Nesco—National Enameling & Stamping Co., Inc., New York, N. Y.
Riverside Boiler Works, Inc., Cambridge, Mass.
Thompson Iron Works, Philadelphia, Pa.

SINKS, STONE.

Alberene Stone Co., New York, N. Y.
Butler, Philip H., & Son Co., Somerville, Mass.
Diamond—Robinson Clay Products Co., Brooklyn, N. Y.
Euclid Mfg. Co., Paden City, W. Va.
Nustone Products Corp., New York, N. Y.
Sanitas Mfg. Co., Boston, Mass.
Union Soapstone Co., Boston, Mass.

SINKS, WASH, AND LAVATORIES, FACTORY.

American Foundry & Mfg. Co., St. Louis, Mo.
Barnes Mfg. Co., Mansfield, O.
Cleveland Blow Pipe & Mfg. Co., Cleveland, O.
Crane Co., Chicago, Ill.
Ebco—D. A. Ebinger Sanitary Mfg. Co., Columbus, O.
Eljer Co., Ford City, Pa.
Factoro, Unity, Utility—The J. L. Mott Iron Works, Trenton, N. J.
Ford's Porcelain Works, Perth Amboy, N. J.
Kohler Co., Kohler, Wis.
Koven, L. O., & Bro., Jersey City, N. J.
Madrid—Thos. Maddock's Sons Co., Trenton, N. J.
Meeco—Manufacturing Equipment & Eng. Co., Framingham, Mass.
Richmond Radiator Co., New York, N. Y.
Rundle Mfg. Co., Milwaukee, Wis.
Sesco—Sanitary Earthenware Specialty Co., Trenton, N. J.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Trenton Potteries Co., Trenton, N. J. "Tepeco."
Union Sanitary Works, Noblesville, Ind.
Walworth Company, Boston, Mass.
Weiskittel, A., & Son Co., Baltimore, Md.
White Beauty—Humphreys Mfg. Co., Mansfield, O
Wolff Mfg. Corp., Chicago, Ill.

SIPHONS, CLOSET TANK.

(See also "Valves, Water Closet Flush Tank.")

American Foundry & Mfg. Co., St. Louis, Mo.
Coyne & Delany Co., Brooklyn, N. Y.
Exeter Brass Works, Exeter, N. H.
Frost Mfg. Co., Kenosha, Wis.
Jones Hollow Ware Co., Baltimore, Md.
Riverside Foundry & Galvanizing Co., Kalamazoo, Mich.

SIPHONS AND LIFTS, ACID.

Diener, Geo. W., Mfg. Co., Chicago, Ill.
Koerting—Schutte & Koerting Co., Philadelphia, Pa.
Pyrene Mfg. Co., New York, N. Y.

SIPHONS, SEWER, FLUSHING.

Aten Sewage Disposal Co., New York, N. Y.
Kaustine Co., Inc., Buffalo, N. Y.
Modern Iron Works, Quincy, Ill. (Trade names—Rhoads-Williams, Potter-Miller Pattern.)
New York Sewage Disposal Co., New York, N. Y.
Pacific Flush Tank Co., Chicago, Ill. (Trade names—Miller, Miller-Potter, Rhodes-William.)

SIPHONS, STEAM GAGE.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Ashcroft—The Ashcroft Mfg. Co., New York, N. Y.
Buckeye Iron & Brass Co., Dayton, O.
Crane Co., Chicago, Ill.
Cressman, N. G., Co., Philadelphia, Pa.
Gwilliam Mfg. Corp., Philadelphia, Pa.
Kleinman, Russell R., Philadelphia, Pa.
Koerting Universal—Schutte & Koerting Co., Philadelphia, Pa.
Lonergan, J. E., Co., Philadelphia, Pa.
Ohio—The Ohio Injector Co., Wadsworth, O.
Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
Powell Co., The Wm., Cincinnati, O.
Star—Star Brass Mfg. Co., Boston, Mass.
United States Gauge Co., New York, N. Y.
Walworth Company, Boston, Mass.
Victoria Metal Co., Erie, Pa.

SIPHONS, STEAM JET.

(See also "Ejectors.")

Koerting—Schutte & Koerting Co., Philadelphia.

SIRENS, ELECTRIC.

Benjamin Electric Mfg. Co., Chicago, Ill.
Federal—Federal Electric Co., Chicago, Ill.
Sterling—The Sterling Siren Fire Alarm Co., Inc., Rochester, N. Y.

SKIDDERS, LOG.

Lidgerwood Mfg. Co., New York, N. Y.
Street Brothers Machine Works, Chattanooga, Tenn.

SKIDS, UNLOADING.

Boston & Lockport Block Co., Boston, Mass.
Clark, George P., Co., Windsor Locks, Conn.
Lansing Co., Lansing, Mich.
Standard Conveyor Co., North St. Paul, Minn.
Zering Mfg. Co., H., Cincinnati, O. (barrel).

SKIMMERS, BOILER.

Buckeye Boiler Skimmer Co., Toledo, O. (floating).
National Boiler Specialties Co., Elgin, Ill.
Yarway—Yarnall-Waring Co., Philadelphia, Pa.

SKIMMERS, HOT METAL.

American Saw & Tool Works, Chicago, Ill.
Mullins Body Corp., Stamping Dept. A, Salem, O.

SLATE, PLUMBING AND STRUCTURAL.

Alpha Slate Mfg. Co., Bangor, Pa.
Bangor Structural Slate Co., Bangor, Pa.
Butler, Philip H., & Son Co., Boston, Mass.
Crown Slate Co., Pen Argyl, Pa.
East Bangor Consolidated Slate Co., East Bangor, Pa.

Fair Haven Marble & Marbleized Slate Co., Fair Haven, Vt.
Knickerbocker Slate Corp., New York, N. Y.
Keenan Structural Slate Co., Bangor, Pa.
Masters—Excelsior Slate Co., Pen Argyl, Pa.
McConnell Slate Co., Brooklyn, N. Y.
Miller, O. A., Slate Co., Slatington, Pa.
New York Slate Works, The, New York, N. Y
Pennsylvania Structural Slate Co., Easton, Pa.
Phoenix Slate Co., The, Wind Gap, Pa.
Rutland Marble Mfg. Co., Rutland, Vt.
Slate Products Co. of America, Bangor, Pa.
Structural Slate Co., The, Pen Argyl, Pa.
Van Ness Slate Co., Newark, N. J.
Union Soapstone Co., Boston, Mass.
Western Slate Co., Chicago, Ill.
Woodley Slate Co., Bangor, Pa.

SLEDGES, MAULS, OR STRIKING HAMMERS.

Hardsocg, Martin Co., Pittsburgh, Pa.
Heller Bros., Co., Newark, N. J.
Horseshoe—Stanley Rule & Levels Co., Atha Div., New Britain, Conn.
Hubbard & Co., Pittsburgh, Pa.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Klein-Logan Co., Pittsburgh, Pa.
Lovejoy Tool Works, Chicago, Ill.
Mack & Co., Rochester, N. Y.
Plumb, Fayette R., Inc., Philadelphia, Pa.
Union Drop Forge Co., Chicago, Ill.
Verona Tool Works, Pittsburgh, Pa.
Vulcan—Vulcan Tool Mfg. Co., Quincy, Mass.
Warren Tool & Forge Co., Warren, O.
Warwood Tool Co., Wheeling, W. Va.

SLEEVES, CALKING, GAS PIPE.

Sanitary Company of America, Linfield, Pa.
Zurn, J. A., Mfg. Co., Erie, Pa.

SLEEVES, DREDGING.

Arno—The Cincinnati Rubber Mfg. Co., Cincinnati, O.
Ametalhose—American Metal Hose Co., Waterbury, Conn.
Continental Rubber Works, Erie, Pa.
Goodrich Co., The B. F., Akron, O.
Hudson Mechanical Rubber Co., New York, N. Y.
Lancaster Iron Works, Inc., Lancaster, Pa.
Maltese Cross—Gutta Percha & Rubber Mfg. Co., New York.
Mechanical Rubber Co., The, New York, N. Y.
New York Belting & Packing Co., New York, N. Y.
New York Rubber Corporation, Beacon, N. Y.
Perfection—Boston Woven Hose & Rubber Co., Cambrige, Mass.
Quaker City Rubber Co., Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Sphinx, Diamond—Diamond Rubber Co., Inc., Akron, Ohio.
United & Globe Rubber, Inc., Trenton, N. J.
United States Rubber Co., New York, N. Y.
Voorhees Rubber Mfg. Co., Jersey City, N. J.

SLEEVES, DRILL.

(See "Sockets and Sleeves, Drill.")

SLEEVES, FIRE WALL.

Wood, T. B., Sons Company, Chambersburg, Pa.

SLEEVES, FLOOR AND CEILING.

Adjusto, B. & C.—Beaton & Corbin Mfg. Co., Southington, Conn.
America—America Heating & Supply Co., Rockford, Ill.
American—American Fdy. & Mfg. Co., St. Louis, Mo.
Beaton—Beaton & Cadwell Mfg. Co., New Britain, Conn.
Crane—Crane Co., Chicago, Ill.
Grabler Universal—Grabler Mfg. Co., Cleveland, O.
Jenkins Mfg. Co., Bloomfield, N. J.
Perfection—Illinois Malleable Iron Co., Chicago, Ill.
Pittsburgh Valve & Fittings Co., Barberton, O.
Sanders—American Fdy. & Mfg. Co., St. Louis, Mo.
Sodemann Heat & Power Co., St. Louis, Mo.
Walworth Company, Boston, Mass.

SLEEVES, PIPE.

Acme—W. H. Johnson & Son Co., Indianapolis, Ind.
American Fdy. & Mfg. Co., St. Louis, Mo.
Custer—Custer Coupling Co., Bradford, Pa.
Dayton—The Dayton Pipe Coupling Co., Dayton, O.
Dresser—S. R. Dresser Mfg. Co., Bradford, Pa.
Essex Foundry Co., Newark, N. J.
Haines Co., The, Chicago, Ill.
Hammon Coupler Co., The, Mount Vernon, O.
Manhoff—Horace C. Nichols Co., Boston, Mass.
Prentice, L. H., Co., Chicago, Ill.

SLEEVES, RATCHET.

Keystone—Keystone Mfg. Co., Buffalo, N. Y.

SLEEVES, REDUCING.

Keystone—The Keystone Mfg. Co., Buffalo, N. Y.

SLEEVES, UNION.

H. C. N.—Horace C. Nichols Co., Boston, Mass.

SLINGS, BARREL.

Morris, Herbert, Inc., Buffalo, N. Y.

SLINGS, WIRE ROPE.

American Cable Co., Inc., New York, N. Y.

SLOTTERS, COMMUTATOR.

Green Equipment Corp., Chicago, Ill. "Aurand," "Aurand, Jr."
Circular Tool Co., Inc., Providence, R. I.
Martindale Electric Co., The, Cleveland, O. "Handy."

SLOTTERS, DIE.

Manning, Maxwell & Moore, Inc., New York N Y
Pottstown Machine Co., Pottstown, Pa.

SMOKE HOODS.

Leiman Bros., New York, N. Y.

SNAPS AND STAYS, CHAIN.

American Brass & Copper Co., The, New York, N. Y.
American Pin Co., Waterbury, Conn.
Bernz, Otto, Co., Newark, N. J.
Bridgeport Chain Co., Bridgeport, Conn.
Frost Mfg. Co., The, Kenosha, Wis.
Good Mfg. Co., Inc., New York, N. Y.
Grammes, L. F., & Sons, Allentown, Pa.
Hoffman & Billings Mfg. Co., Milwaukee, Wis.
Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Parker Wire Goods Co., Worcester, Mass.
Peck Bros. & Co., The, New Haven, Conn.
Russell, John M., Mfg. Co., The, Naugatuck, Conn.
Smith & Egge Mfg. Co., Bridgeport, Conn.
Street & Kent Mfg. Co., Chicago, Ill.
Waterbury Mfg. Co., Waterbury, Conn.
Wolff Mfg. Corp., Chicago, Ill.
Woodward-Wanger Co., Philadelphia, Pa.

SNIPS OR SHEARS, TINNERS'.

Ajax—Acme Shear Co., The, Bridgeport, Conn.
Bartlett—Bartlett Mfg. Co., Detroit, Mich.
Bergman Tool Mfg. Co., Buffalo, N. Y.
Bernz, Co., Otto, Newark, N. J.
Grobet File Corp. of America, New York, N. Y.
Heinisch—R. Heinisch's Sons Works, Newark, N. J.
Irvington Mfg. Co., Irvington, N. J.
Johnson, Wm., Firm of, Newark, N. J.
Lyon—Lyon, Conklin & Co., Inc., Baltimore, Md.
Manco Mfg. Co., Bradley, Ill.
National—The National Cutlery Co., Philadelphia, Pa.
Niagara Machine & Tool Works, Buffalo, N. Y.
Pexto—Peck, Stow & Wilcox Co., Southington, Conn.
Perfection—Clipper Tool Co., Buffalo, N. Y.
Reliance—W. H. Compton Shear Co., Newark, N. J.
Searight Compound Lever—Bartlett Mfg. Co., Detroit, Mich.
Star—Acme Shear Co., Bridgeport, Conn.
Tree Brand—H. Boker & Co., Inc., New York, N. Y.
Wiss—J. Wiss & Sons Co., Newark, N. J.

SOAP CHIPS, BURNISHING

Abbalco—The Abbott Ball Co., Hartford, Conn.

SOAP AND CLEANERS, HAND.

Baum's Castorine Co., Rome, N. Y.
Blue Ribbon—International Metal Polish Co., Indianapolis, Ind.
Cleanzum—White & Bagley Co., The, Worcester, Mass.
Enterprise Oil Co., Buffalo, N. Y.
Flash Cleanup—Flash Chemical Co., Cambridge, Mass.
Gre-Solvent—The Utility Co., New York, N. Y.
Hand-i-Soap—Wilford Hall Laboratories, Port Chester, N. Y.
Imp—Burton H. Rath, Philadelphia, Pa.
Modoc—The Modoc Co., Fernwood, Pa. (powder).
Menz—Hollingshead, R. M., Co., Camden, N. J.
Monarch Cleaner Corp., Utica, N. Y.
Skat, Skout—Skat Co., Hartford, Conn.
20th Century—Theo. B. Robertson Products Co., Inc., Chicago, Ill.
23 for Dirt—Corliss Supply & Mfg. Co., St. Louis, Mo.
White & Bagley Co., The, Worcester, Mass.

SOAP, LIQUID, AND DISPENSERS.

Antiseptol Liquid—Antiseptol Liquid Soap Co., Chicago, Ill.
Baum's Castorine Co., Rome, N. Y. "Baum's."

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Sockets and Sleeves

One solid piece—Standard except the flat
AN ORDINARY DRILL SOCKET will drive a twist drill only as long as the drill has a tang. When the tang twists off or the shank breaks, the drill is useless in the ordinary socket.
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Boyer Chemical Laboratory, The, Chicago, Ill.
Carpenter, W. D., Co., Syracuse, N. Y. "Carpenter."
Damascus—Damascus Mfg. Corp., Cleveland, Ohio.
Edwardsville Brass Works, Edwardsville, Ill.
Flash Chemical Co., Cambridge, Mass.
Imperial Brass Mfg. Co., Chicago, Ill. "Universo-Watrous."
Johnson Compound & Supply Co., Rochester, N. Y.
Liqua-San—The Huntington Laboratories, Inc., Huntington, Ind.
McVicker, W. B., Co., Brooklyn, N. Y.
Phoenix Oil Co., Cleveland, O. "Clarus."
Rochester Germicide Co., Rochester, N. Y.
Sanisoap—Oleum Products Co., Scranton, Pa.
Schaeffer Bros. & Powell Mfg. Co., St. Louis, Mo.
Soapurn, Apex—Chas. Morrill, New York, N. Y.
Sonneborn, L., Sons, Inc., New York, N. Y.
Standardized Products Co., Chicago, Ill.
Universal—Geo. H. Garnet Co., Allentown, Pa.
World Refining Co., Easton, Pa.

SOAP, OIL.

Acme—Acme Mfg. Co., The, Cleveland, O.
Baum's—Baum's Castorine Co., Rome, N. Y.
Damascus Mfg. Corp., Cleveland, O.
Blue Ribbon—International Metal Polish Co., Indianapolis, Ind.
Phoenix Oil Co., Cleveland, Ohio. "Murphys."
Smith, Werner G., Co., The, Cleveland, Ohio. "Linoil."
Swan-Finch Oil Corp., New York, N. Y. (Trade names—Catac, Niagara.)
Washzum—White & Bagley Co., Worcester, Mass.
Waverly—Waverly Oil Works Co., Pittsburgh, Pa.

SOAP, POWDERED.

Imperial—Burton H. Rath, Philadelphia, Pa.
McVicker—Wm. B. McVicker Co., Brooklyn, N. Y.
Modoc—The Modoc Co., Inc., Fernwood, Pa.
Oil and Waste Saving Machine Co., Philadelphia, Pa.
Standard Chemical Corp., Kalamazoo, Mich.
20th Century—Theo. B. Robertson Products Co., Inc., Chicago. Ill.

SOCKETS, BOLT, CONCRETE.

Modern Mfg. Co., Cleveland, Ohio.

SOCKETS, DRILL, "USE-EM-UP."

Lovejoy Tool Works, Chicago, Ill.

SOCKETS AND SLEEVES, DRILL.

Allen Wrench & Tool Co., Providence R. I. "Allen Friction."
Armstrong—Armstrong Bros. Tool Co., Chicago, Ill.
B. & S.—The Billings & Spencer Co., Hartford, Conn.
Celfor—Clark Equipment Co., Buchanan, Mich.
Detroit Twist Drill Co., Detroit, Mich.
Etna Company, Taunton, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass. "G. T. D."
Keystone Mfg. Co., The, Buffalo, N. Y. "Keystone."
Moore & Moore, Inc., Reading, Pa.
Morse—Morse Twist Drill & Machine Co., New Bedford, Mass.
Perfect, Double Tang—The Cleveland Twist Drill Co., Cleveland, O.
Scully Jones & Co., Chicago, Ill. "Wear Ever."
Standard Tool Co., Cleveland, O.
Stanworth Tool Mfg. Co., Indianapolis, Ind.
Union Twist Drill Co., Athol, Mass.
Use-Em-Up—Lovejoy Tool Works, Chicago, Ill.

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Closed
Fig. 340

Open
Fig. 341

Weldless Drop Forged Wire Rope Sockets for ¼ to 2¼ inch diameter Rope; also furnished in Closed Style with Loose Hook, and in Open Style with Loose Swivel Hook and Double Swivel Hook for ¼ to 1½ inch diameter of rope.

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(See also "Fittings, Wire Rope.")

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Broderick & Bascom Rope Co., St. Louis, Mo.
Laughlin, Thos., Co., Portland, Me.
Walworth Company, Boston, Mass.
Wilcox, Crittenden & Co., Inc., Middletown, Conn.
Vulcan—J. H. Williams & Co., Buffalo, N. Y.

SOFTENERS, WATER.

American—American Water Softener Co., Philadelphia, Pa.
Ansonia Mfg. Co., Ansonia, Conn.
Booth—The Refinite Co., Omaha, Neb.
Compound Injector & Specialty Co., Chicago, Ill.
Eureka—Dodge Mfg. Corp., Mishawaka, Ind.
Federal Water Softeners Co., Chicago, Ill.
Fort Wayne Engineering & Mfg. Co., Fort Wayne, Ind.
Goade Water Filter & Purifier Mfg. Co., Allentown, Pa.
Hot Flow—International Filter Co., Chicago, Ill.
Hungerford—Hungerford & Terry, Inc., Clayton, N. J.
International—International Filter Co., Chicago, Ill.
Lancaster Iron Works, Inc., Lancaster, Pa.
Lord—Geo. W. Lord Co., Philadelphia, Pa.
Monarch Engineering Co., The, Dayton, Ohio.
New York Continental Jewell Filtration Co., New York, N. Y.
Northern System—Northern Water Softener Co., Madison, Wis.
Power Plant Specialty Co., Chicago, Ill.
Permutit—The Permutit Co., New York, N. Y.
Pittsburgh Filter & Eng. Co., Pittsburgh, Pa.
Refinite—The Refinite Co., Omaha, Nebr.
Reiter Co., Elgin, Ill.
Richmond Water Softener Co., Richmond, Ind.
Russell—Russell Water Softening Co., Chicago, Ill.
Scalfe—Wm. B. Scalfe & Sons Co., Pittsburgh, Pa.
Uniflow Manufacturing Co., Erie, Pa.
Wayne Tank & Pump Co., Ft. Wayne, Ind.
Zeolite—Graver Corporation, East Chicago, Ind.
Zeolite Engineering Co., Chicago, Ill. (Trade names—Rainbow, Zeolite.)

SOIL, PLUMBERS'.

Bernz, Otto, Co., Newark, N. J.
Bixby's 3B—S. M. Bixby & Co., Inc., Brooklyn, N. Y.
Colebrook's, W. H., Sons, Syracuse, N. Y.

SOLDER.

Ajax Metal Co., The, Philadelphia, Pa.
Alumalux Co., Sidney, O. "Alumalux."
American Lead Co., Pittsburgh, Pa.
American Solder & Flux Co., Philadelphia, Pa.
Amertin—American Tin & Terne Plate Co., Philadelphia, Pa.
Atkinson Co., The, Rochester, N. Y.
Belmont—Belmont Smelting & Refining Works, Inc., Brooklyn, N. Y.
Bigsby Metals Co., The, East Chicago, Ind.
Blatchford, E. W., Co., Chicago, Ill. "Blatchford."
Canfield, M. C., Sons Co., Newark, N. J.
Charleston Lead Works, The, Charleston, S. C.
Chicago Smelting & Refining Co., Chicago, Ill.
Chicago Solder Co., Chicago, Ill. (bar and wire).
Copperine B. Babbitt—Erie White Metal Co., Erie, Pa.
Crescent—North American Smelting Co., Philadelphia, Pa.
Delaware Metal Refinery, Philadelphia, Pa.
Die Noflux—Reinhold Noflux Aluminum Solder Co., Newark, N. J.
Disston & Sons Co., Henry, Philadelphia, Pa. (for saw brazing.)
Division Smelting & Refining Co., Chicago, Ill. "Divco."
Dutch Boy—National Lead Co., New York, N. Y.
Eagle-Picher Lead Co., Cincinnati, O. (bar, wire, tape, triangular, drop).
Eagle Smelting & Refining Works, New York, N. Y.
Empire Metal Co., Syracuse, N. Y.
Ferer, Aaron, & Sons, St. Louis, Mo. "Burr."
Finn, John, Metal Works, San Francisco, Cal.
Frictionless Metal Co., St. Louis, Mo.
Gardiner Metal Co., Chicago, Ill.
Gilbert, A., & Sons Brass Foundry Co., St. Louis, Mo.
Great Lakes Chemical Works, Detroit, Mich.
Hoyt Metal Co., St. Louis, Mo.
Jacobson, I. M., & Sons Co., Detroit, Mich.
Kester Wire Solder—Chicago Solder Co., Chicago, Ill.
Lehman Bros., Hoboken, N. J.
Lewis—John T. Lewis & Bros. Co., Philadelphia, Pa.
Lewis—National Lead Co., New York, N. Y.
Lissberger, Marks, & Son, Inc., Long Island City, N. Y. (Trade names—New Process, Semper Idem.)
Magnolia Metal Co., New York, N. Y.
Merchant & Evans Co., Inc., Philadelphia, Pa. Trade names: Camaret, Double Refined, Extra Fine, M. & Co., Standard, Tinsmiths.
Michigan Smelting & Refining Co., Detroit, Mich. (bar and wire).
Millar & Son Co., Chas., Utica, N. Y.
More-Jones Brass & Metal Co., St. Louis, Mo.
North American Smelting Co., Philadelphia, Pa.
North Star Foundry Co., Minneapolis, Minn.
Northwestern—United Lead Co., New York, N. Y.
Old Roman—Neu Metal Products Corp., Binghamton, N. Y.
Pacific Metal Works, San Francisco, Calif.
Peerless Special, Strictly Half & Half, Wire Solder—The Peerless Alloy Co., Denver, Colo.
Plumbers' Wiping—National Lead Co., New York.
Pennsylvania Smelting Co., Pittsburgh, Pa.
Puget Sound Metal Works, Tacoma, Wash. "Navy."
Rainbow—Peerless Smelting & Refining Co., Philadelphia, Pa.
Raymond Lead Co., Chicago, Ill.
Reinhold No Flux Aluminum Solder Co., Irvington, N. J. (quick weld).
Richards & Co., Inc., Boston, Mass.
Rinehart—Pittsburgh White Metal Co., Pittsburgh, Pa.
Riverside Metal Refining Co., Connellsville, Pa.
Rochester Lead Works, Rochester, N. Y.
Shonberg, I., Inc., Brooklyn, N. Y.
Smiro—Smith & Robinson, Chicago, Ill.
Solderall—Solderall Co., Newark, N. J.
Standard Rolling Mills, Inc., Brooklyn, N. Y.
Stromi—Standard Rolling Mills, Inc., Brooklyn, N. Y.
Superior—North American Smelting Co., Philadelphia, Pa.
Syracuse—United American Metals Corp., Brooklyn, N. Y.
Taylor, N. & G., Co., Philadelphia, Pa. "Hendy."
Union Smelting & Refining Co., Newark, N. J.
United Smelting & Aluminum Co., New Haven, Conn.
United States Reduction Co., East Chicago, Ind.
Waterbury Brass Goods Corp., Waterbury, Conn.
Wensley Metal Products Co., Denver, Colo.
Weldwell—Westinghouse Electric & Mfg. Co., Philadelphia, Pa.
Wheeling Corrugating Co., Wheeling, W. Va.
Whiz—The R. M. Hollingshead Co., Camden, N. J.
Wizard—S. Birkenstein & Sons, Inc., Chicago, Ill.

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This is a seamless tubular solder (virgin tin and lead) which contains tiny pockets holding flux. Just before the solder melts the proper amount of flux is released, and with the melting of the solder a substantial bond is created.

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For delicate electrical and radio work absolutely non-corrosive joints are required. For this purpose Kester Rosin-Core Wire Solder affords the most simple and convenient means of soldering by either experienced or inexperienced persons.

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Alumalux Co., Sidney, Ohio. "Alumalux."
Aluminum Brazing Solder Co., Chester, Pa.
Atkinson Co., The, Rochester, N. Y.
Berger Bros. Co., Philadelphia, Pa.
Bigsby Metals Co., The, East Chicago, Ind.
Bull Dog—Marshall Metal Corp., Chicago, Ill.
Combination—Reinhold Noflux Aluminum Solder Co., Newark, N. J.
Cramp, Wm. & Sons Ship & Engine Building Co., The, Philadelphia, Pa.
Die Casting Solder—Reinhold Noflux Aluminum Solder Co., Newark, N. J.
Eagle Smelting & Refining Works, New York.
Hungerford, U. T., Brass & Copper Co., New York, N. Y.
Lumen Bearing Co., Buffalo, N. Y.
Noflux and Noflux Special—Reinhold Noflux Aluminum Solder Co., Newark, N. J.
Richards & Co., Inc., Boston, Mass.
Semper Idem—Marks Lissberger & Son, Inc., Long Island City, N. Y.
Sterling—Sterling Aluminum Solder Co., Inc., Brooklyn, N. Y.
Supreme Brand—Hunt-Lasher Co., Inc., Boston, Mass.
Syracuse—United American Metals Corp., Brooklyn, N. Y.
United Smelting & Aluminum Co., New Haven, Conn.
Union Smelting & Refining Co., Inc., Newark, N. J.
Universal—Universal Fluxine Co., Urbana, O.
Upshur Aluminum Solder, New York, N. Y.
Weldit—Weldit Acetylene Co., Detroit, Mich.
Whites Metal Co., Lees Summit, Mo.

SOLDER, CAST IRON.

Bull Dog—Marshall Metal Corp., Chicago, Ill.
Cramp, Wm., & Sons Ship & Engine Building Co., The, Philadelphia, Pa.
Whites Metal Co., Lees Summit, Mo.
Weldit—Weldit Acetylene Co., Detroit, Mich.

SOLDER, RADIO.

Kester—Chicago Solder Co., Chicago, Ill.

SOLDER, SELF FLUXING.

Gardiner Metal Co., Chicago, Ill.
Kester—Chicago Solder Co., Chicago, Ill.
Tinol—American Solder & Flux Co., Philadelphia, Pa.

SOLDER, SILVER.

American Brass Co., Waterbury, Conn.
Atkins, E. C., & Co., Indianapolis, Ind. (for band saws).
Edge & Co., Frank, Grand Rapids, Mich.
Gardiner Metal Co., Chicago, Ill.
Handy & Harman, New York, N. Y.
Hungerford, U. T., Brass & Copper Co., New York.
Leach & Gardner Co., Attleboro, Mass.
Mackinzie-Walton Mfg. Co., Pawtucket, R. I.
Simonds Saw & Steel Co., Fitchburg, Mass.
United Wire & Supply Co., Providence, R. I.

SOLDER, WIRE.

Allen's Tinning Stick—L. B. Allen Co., Inc., Chicago, Ill.
American Solder & Flux Co., Philadelphia, Pa.
Gardiner Metal Co., Chicago, Ill.
Kester—Chicago Solder Co., Chicago, Ill.
Semper Idem—Marks Lissberger & Sons, Inc., Long Island City, N. Y.
Standard Rolling Mills, Inc., Brooklyn, N. Y.

SOLDERING FLUX, PASTE AND LIQUID.

Allen, L. B., Co., Inc., Chicago, Ill. (Trade names—Presto, Samson, Sun.)
Alumalux Co., Sidney, O. "Rajah."
Amco, Tinol—American Solder & Flux Co., Philadelphia, Pa.
Anchor—Garden City Laboratory, Chicago, Ill.
Baltimore Chemical Co., Baltimore, Md.
Blue Seal—Blue Seal Chemical Co., Roselle, N. J.
Boyer Chemical Laboratory Co., The, Chicago, Ill.
Burnley—Burnley Battery & Mfg. Co., North East, Pa.
Callahan's—Geo. Callahan & Co., New York, N. Y.
Chicago Solder Co., Chicago, Ill.
Corliss C C C—Corliss Supply & Mfg. Co., St. Louis, Mo.
Crescent—McGill Mfg. Co., Valparaiso, Ind.
Highland—Highland Electro-Chemical Mfg. Co., Connellsville, Pa.
Hungerford, U. T., Brass & Copper Co., New York, N. Y.
Johnson's—Johnson Mfg. Co., Chicago, Ill.
Los Angeles Smelting Co., Los Angeles, Cal.
Millers Falls Co., Millers Falls, Mass.
Nokorode—The M. W. Dunton Co., Providence, R. I.
North American Smelting Co., Philadelphia, Pa. "Superior."
Perfection—Baltimore Chemical Co., Baltimore, Md.
Red Letter, Ruby Fluid—Ruby Chemical Co., Columbus, O.
Sandoval Zinc Co., Chicago, Ill.
Smith Welding Equipment Corp., Minneapolis, Minn.
Solderall—Solderall Co., Newark, N. J.
Speco—Special Chemicals Co., Highland Park, Ill.
Spice, Alfred, Process Co., Jersey City, N. J.
Star—McGill Mfg. Co., Valparaiso, Ind.
Starbuck's—R. M. Starbuck & Sons, Hartford, Conn.
Syracuse—United American Metals Corp., Brooklyn, N. Y.
Torchweld Equipment Co., Chicago, Ill. (Trade names—Ruby, Torchweld.)
Universal—Universal Fluxine Co., Urbana, O.
Webb—Webb Mfg. Co., Newark, N. J.
Weldit Acetylene Co., Detroit, Mich.
Yager's—Alex R. Benson Co., Inc., Hudson, N. Y.

SOLDERING OUTFITS, ACETYLENE OR HYDROGEN.

Torit—Bastian-Blessing Co., Chicago, Ill.

SOLDERING OUTFITS, GAS.

Calproco—Callender Soldering Process Co., Chicago, Ill.

SOLDERING SETS.

Allen, L. B., Co., Inc., Chicago, Ill.
Barrett, W. L., Bristol, Conn.
Nokorode Solderkit—M. W. Dunton Co., Providence, R. I.
Peck, Stow & Wilcox Co., The, Southington, Conn.

SOLDERING TOOLS, GAS.

Allen, L. B., Co., Inc., Chicago, Ill.
Clark—Chicago Well Supply Co., Chicago, Ill.

SOLVENTS, SEWER AND DRAIN PIPE.

Desolvo—The Chamberlain Co., Pittsburgh, Pa.
Hercules Chemical Co., Inc., New York, N. Y.

SPACERS, MILLING CUTTER.

Detroit Stamping Co., Detroit, Mich.
Scully, Jones & Co., Chicago, Ill.

SPACERS, TIE.

Duff Manufacturing Co., The, Pittsburgh, Pa.

SPADES, BORING OR TUNNELING TOOLS, PLUMBERS'.

Eierman Floor Scraper Co., Brooklyn, N. Y.
Pollard, Joseph G., Co., Inc., Brooklyn, N. Y.

SPADS, MINING ENGINEERS' AND SURVEYORS'.

Black Diamond Spad Co., Richmond, Va.
Howell's—The Howell Mining Drill Co., Plymouth, Pa.
Hunter—Hunter Pressed Steel Co., Lansdale, Pa.

SPANNERS, DROP FORGED.

Armstrong Bros. Tool Co., Chicago, Ill.
Falcon—J. H. Williams & Co., Buffalo, N. Y.

SPANNERS, HOSE.

American Foundry & Mfg. Co., St. Louis, Mo.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Larkin—Larkin Mfg. Co., Dayton, O.
Leonard—Callahan Co., The Cornelius, Boston, Mass.
Schlangen Bros. Co., Chicago, Ill.
Taber's Reversible—Sherman Mfg. Co., H. B., Battle Creek, Mich.

SPANNERS, WASTE PLUG.

Williams, J. H., & Co., Buffalo, N. Y.

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Farrel Foundry & Machine Co., Buffalo, N. Y.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Moore & White Co., The, Philadelphia, Pa.
Myers, F. E., & Bro., Co., The, Ashland, O.
Palmer-Bee Company, Detroit, Mich.

SPIKES, RAILROAD.

Ames, W., & Co., Jersey City, N. J.
Bethlehem Steel Co., Bethlehem, Pa.
Elyria Iron & Steel Co., Cleveland, O.
Foster, L. B., Co., Pittsburgh, Pa.
Igoe Bros., Newark, N. J.
Inland Steel Co., Chicago, Ill.
Kansas City Bolt & Nut Co., The, Kansas City, Mo.
Lebanon Iron Co., Philadelphia, Pa.
Oliver Iron & Steel Corp., Pittsburgh, Pa.
Republic Iron & Steel Co., Youngstown, O. (and boat).
Scranton Bolt & Nut Co., Scranton, Pa.

SPIKES, WIRE AND CUT.

American Bolt Co., Birmingham, Ala.
American Steel & Wire Co., Chicago, Ill.
Ames, W., & Co., Jersey City, N. J. (Boat, dock, galvanized, mine.)
Igoe Bros., Newark, N. J.
Lanz, M., Bolt Co., Pittsburgh, Pa.
Lebanon Iron Co., Philadelphia, Pa.
Republic Iron & Steel Co., Youngstown, O.
Richardson, Edro, Brass Co., Baltimore, Md.
Scranton Bolt & Nut Co., Scranton, Pa.
Severance, S., Mfg. Co., Glassport, Pa.

SPIGOTS, TAPPED.

Blake Specialty Co., Rock Island, Ill.
Kupferle, John C., Foundry Co., St. Louis, Mo.

SPINDLES, BUFFING, FOR LATHES.

Goodell-Pratt Co., Greenfield, Mass.

SPINDLES, GRINDING MACHINE.

Coates—Coates Clipper Mfg. Co., Worcester, Mass.

SPINDLES, GRINDING.

Ex-Cell-O Tool & Mfg. Co., Detroit, Mich.

SPINDLES, GRINDSTONE.

Hoppen, J. E., & Sons, Belleville, N. J.

SPLICERS, BELT.

Prims, J. C., Hornell, N. Y.

SPLITTERS, ICE.

Gifford-Wood Co., Hudson, N. Y.

SPLITTERS, NUT.

Carolus—Carolus Mfg. Co., Sterling, Ill.
Carolus—W. A. Whitney Mfg. Co., Rockford, Ill.
Hypowa—H. K. Porter, Inc., Everett, Mass.
Whisler, John, Gibson, Ia.

SPLITTERS, WOOD.

American—American Saw Mill Machinery Co., Hackettstown, N. J.
Glascock Stove & Mfg. Co., Greensboro, N. C.
Hildreth Bros.—Lewis R. Ripley, Fitchburg, Mass.
Hill-Curtis Co., Kalamazoo, Mich.
Multnomah Iron Works, Portland, Ore.
Wheland Co., The, Chattanooga, Tenn. "Wheland."

SPOKESHAVES, WOOD.

AAA—E. C. Atkins & Co., Indianapolis, Ind.
Goodell-Pratt Co., Greenfield, Mass.
Hargrave—The Cincinnati Tool Co., Cincinnati, O.
Johnson, Wm., Firm of, Newark, N. J. (wood).
Millers Falls Co., Millers Falls, Mass.
Stearns & Co., E. C., Syracuse, N. Y.
White Co., The L. & I., Buffalo, N. Y.

SPOONS AND DIPS, SEWER BASIN.

Coleman, Allan J., Chicago, Ill. "Coleman's."

SPOTTERS, CAR.

(See also "Pullers, Car.")
Caldwell, H. W., & Son Co., Chicago, Ill.

SPOUTS, BASIN COCK.

Ampinco—American Pin Co., Waterbury, Conn.
Ideal—Union Brass & Metal Mfg. Co., St. Paul, Minn.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Standard Brass Mfg. Co., Utica, N. Y.
Waterbury Mfg. Co., Waterbury, Conn.
Wuesthoff's—M. W. Wuesthoff, San Francisco, Cal.

SPRAYERS, GASOLINE ENGINE.

(See also "Machines, Spraying.")
Field Force Pump Co., Elmira, N. Y. (Trade names—Junior Leader, Senior Leader, Royal Leader, Empire Leader, Peerless Leader, Union Leader.)

SPRAYERS, HAND POWER.

(See also "Pumps, Spray.")
Auto-Spray—The E. C. Brown Co., Rochester, N. Y.
Deming Co., The, Salem, O. Trade names—Aerospra, Success, Century, Gardener's Choice, Major, Prize, Planet, Perfect Success, Handy Success, Farmer's Friend, Planter's Gem, Samson.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Hayes Fruit Fog Sprayers—Hayes Pump & Planter Co., Galva, Ill.

SPRAYERS, MINE.

American Moistening Co., Boston, Mass.
Stine, S. B., Osceola Mills, Pa.

SPRAYERS AND SPRINKLERS, OIL, TAR AND WATER.

Anthony Co., The, Long Island City, N. Y.
Buckeye—The MacLeod Co., Cincinnati, O.
Eldus—Union Iron Works, Hoboken, N. J.
Good Roads Machinery Co., Kennett Square, Pa.
International Motor Co., New York.
Kinney—Kinney Mfg. Co., Boston, Mass.
Quigley Furnace Specialties Company, Inc., New York, N. Y.
Standard Mfg. Co., Worcester, Mass. "Johnston."

SPRAYERS, TREE AND WHITEWASH.

Deming Co., The, Salem, O.
Hayes Fruit-Fog—Hayes Pump & Planter Co., Galva, Ill.
Macleod Co., The, Cincinnati, O.
New Watson—Field Force Pump Co., Elmira, N. Y.
Paragon—Campbell-Hausfeld Co., Harrison, O.

SPRAYERS, VEGETABLE, AUTOMATIC WHEEL DRIVE.

Field Force Pump Co., Elmira, N. Y. (Trade names—Gray Jacket, Monarch Triplex, New Watson, Red Jacket, Yellow Jacket.)

SPRAYS, BASIN, BATH AND SHAMPOO.

American Pin Co., Waterbury, Conn.
Art Brass Co., New York, N. Y.
Boekel, Wm., & Co., Philadelphia, Pa.
Brasscrafters—J. P. Eustis Mfg. Co., Boston, Mass.
Central Specialty Mfg. Co., Chicago, Ill.
Federal-Huber Co., Chicago, Ill.
Goetz Brass Company, Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Peck Bros. & Co., The, New Haven, Conn.
Smith, E. C., Mfg. Co., Chicago, Ill.
Waterbury Mfg. Co., Waterbury, Conn.

SPRAYS, PAINT.

(See "Machines and Equipment, Painting.")

SPRAYS, URINAL.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
Columbus Brass Co., Columbus, O.
Crane Co., Chicago, Ill.
Goetz Brass Company, Chicago, Ill.
Hedges & Brother, Newark, N. J.
IXL Pump & Mfg. Co., The, Philadelphia, Pa.
Perkes, Charles, Co., Philadelphia, Pa.
Savill's Sons, Thomas, Philadelphia, Pa.
Speakman Co., Wilmington, Del.
Sherwood Brass Works, Detroit, Mich.
Walworth Company, Boston, Mass.

SPRAYS, WATER, AUTOMATIC.

McAlear Mfg. Co., The, Chicago, Ill.
Richter—Boylston Steam Specialty Co., Chicago, Ill.

SPREADERS, GLUE.

Advance—New Advance Machinery Co., Van Wert, Ohio.
Francis—Chas. F. Francis Co., Rushville, Ind.
Towsley—Towsley, Jno. T., Mfg. Co., Cincinnati, O.

SPREADERS, URINAL.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Crane Co., Chicago, Ill.
Sherwood Brass Works, Detroit, Mich.
Goetz Brass Co., Chicago, Ill.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Speakman Co., Wilmington, Del.
Walworth Company, Boston, Mass.

SPRINGS, PIPE BENDING.

Butterworth—Butterworth Supply Co., Philadelphia, Pa.
Cleveland Wire Spring Co., Cleveland, O.
Frank Bros., New York, N. Y.
Gibson Co., The Wm. D., Chicago, Ill.
Rapid Spring Co., Pittsburgh, Pa.
Raymond Mfg. Co., Ltd., Corry, Pa.
Starbucks—R. M. Starbuck & Sons, Hartford, Conn.

SPRINGS AND BUMPERS, RUBBER.

Canfield Rubber Co., The, Bridgeport, Conn.
Cincinnati Rubber Mfg. Co., Cincinnati, O.
Diamond Rubber Co., Inc., The, Akron, O.
Hewitt Rubber Co., Buffalo, N. Y.
Republic Rubber Co., The, Youngstown, O.
United & Globe Rubber, Inc., Trenton, N. J.
Whitehead Bros. Rubber Co., Trenton, N. J.
Wilbow—Williams-Bowman Rubber Co., Cicero, Ill.

SPRINGS, VALVE.

Ashton Valve Co., Cambridge, Mass.
Gibson, Wm. D., Co., The, Chicago, Ill.
Raymond Spring Co., Corry, Pa.

SPRINKLERS, AUTOMATIC FIRE, HEADS AND SYSTEMS.

Central Automatic Sprinkler Co., Philadelphia, Pa.
Crowder Bros. Automatic Sprinkler Co., St. Louis, Mo.
Cramer System—Parks-Cramer Co., Fitchburg, Mass.
Grinnell Company, Providence, R. I.
Illinois Malleable Iron Co., Chicago, Ill.
International—International Sprinkler Co., New York.
Manufacturers'—Automatic Sprinkler Co. of America, New York, N. Y.
Reliable Automatic Sprinkler Co., The, New York, N. Y.
Rockwood—Rockwood Sprinkler Co. of Massachusetts, Worcester, Mass.
Rockwood—Rockwood Sprinkler Co., Chicago, Ill.
Thompson Mfg. Co., Los Angeles, Cal. (cooling towers).

SPRINKLERS, IRRIGATION.

Cactus, Japanese—American Foundry & Mfg. Co., St. Louis, Mo.
Skinner Irrigation Co., Troy, Ohio.

SPRINKLERS, LAWN.

Acme—Elkhart Brass Mfg. Co., Elkhart, Ind.
Allen, W. D., Mfg. Co., Chicago, Ill. (Trade names—Mayflower, Universal, Newport, Eureka, Zenith, Anaconda, Ring, Blake, Busy, C. B. G., Columbia, Cyclone, Evanston, Garden City, Hartford, Putting Green.)
American Foundry & Mfg. Co., St. Louis. (Trade names—American, Cactus, Imperial, Japanese-National, Louisiana, Pacific, Sunshine.)
Armstrong Mfg. Co., The, Huntington, W. Va. "Fountain," "Half Circle."
Bi-Lateral Fire Hose Co., Chicago, Ill. "Mist Spray."
Brooks Lawn Sprinkling System, Detroit, Mich.
Buckley Rubber Co., J. W., New York, N. Y.
Bullock Mfg. Associates, Springfield, Mass. "Spiral."
Campbell Irrigation Co., Woodbury, N. J. "Turbo," "Waterfoam."
Campbell Waterfan—C. A. Schubert, Douglaston, L. I., N. Y.
Clow, James B., & Sons, Chicago, Ill.
Chicago Flexible Shaft Co., Chicago, Ill.
Dayton—The Dayton Irrigation Co., Dayton, O.
Double Rotary Sprinkler Co., Kansas City, Mo.
Eclipse—John C. Kupferle Foundry Co., St. Louis, Mo.
Elgin—Bon Mfg. Co., Elgin, Ill.
Elk—Elkhart Brass Mfg. Co., Elkhart, Ind.
Farnan Brass Works, Cleveland, O.
Gem—The Beaton & Cadwell Mfg. Co., New Britain, Conn. (and stand.)
Hardware Specialties Co., Springfield, O. "Rainfall."
Hoosier—Elkhart Brass Mfg. Co., Elkhart, Ind.
March Automatic Irrigation Co., Muskegon, Mich. "Rainmaker."
Marcus Iron Works, Peoria, Ill.
Nelson, L. R. Mfg. Co., Peoria, Ill. (Trade names—Crescent, Ring, Crown, Handy, Square Fountain.)
Novelty Mfg. Co., Waterbury, Conn.
Rainbow—Turner & Seymour Mfg. Co., The, Torrington, Conn.
Rainbow Sprinkler Co., Jacksonville, Fla.
Rose—H. B. Sherman Mfg. Co., Battle Creek, Mich.
Schlangen Bros. Co., Chicago, Ill. Trade names—Boulevard, Carnical, Chicago, Fantan, Geyser, Irving Park, Neptune, Raindrop, Rex, Schlangen, Simplex, Paragon, Elmore, Waterspray, Rose.
Seattle Brass Co., Seattle, Wash.
Skinner Irrigation Co., The, Troy, O. (Overhead systems).
Stearns—E. C. Stearns & Co., Syracuse, N. Y.
Street & Kent Mfg. C., Chicago, Ill.
Thompson Mfg. Co., Los Angeles, Cal.
White Showers, Inc., Detroit, Mich. "Rainbow."
X. L. Mfg. Co., Chicago, Ill. (Trade names—5 in 1, Even Spread, Hydro Spray).

SPROCKETS.

(See "Wheels, Sprocket")

SPUDS, HOSE.

Schlangen Bros. Co., Chicago, Ill.

SPUDS, UNION.

H. C. N.—Horace C. Nichols Co., Boston, Mass.

SPUDS, WATER CLOSET.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
American Pin Co., Waterbury, Conn.
American Sanitary Mfg. Co., Abingdon, Ill.
Ayling & Reichert Co., Toledo, O.
Bridgeport Brass Co., Bridgeport, Conn.
Detroit Sanitary Supply Co., Detroit, Mich.
Edwardsville Brass Works, Edwardsville, Ill.
Enterprise Brass Works, Muskegon, Mich.
Federal-Huber Co., Chicago, Ill.
Frank Bros. Mfg. Co., New York, N. Y.
Frost Mfg. Co., Kenosha, Wis.
Hilton Brass Foundry, Hilton, N. J.
Indiana Brass Co., The, Frankfort, Ind.
H. C. N.—Horace C. Nichols Co., Boston, Mass.
Mott, J. L., Iron Works, Trenton, N. J.
M. V. B.—Morency-Van Buren Mfg. Co., Sturgis, Mich.
Peck Bros. & Co., New Haven, Conn.
Phoenix Brass Foundry Co., Irvington, N. J.
Rundle-Spence Mfg. Co., Milwaukee, Wis.
Trenton Brass & Machine Co., Trenton, N. J.
Waterbury Mfg. Co., Waterbury, Conn.
Wiseco—J. B. Wise, Inc., Watertown, N. Y.

SQUARES, CALIPER.

Brown & Sharpe Mfg. Co., **Providence, R. I.**
Starrett Co., The L. S., Athol, Mass.

SQUARES, CARPENTERS'.

Almond, T. R., Mfg. Co., Ashburnham, Mass.
Disston & Sons, Inc., Henry, Philadelphia, Pa.
Nicholls—Nicholls Mfg. Co., Ottumwa, Ia.
Pexto—Peck, Stow & Wilcox Co., Southington, Conn
Sargent & Co., New Haven, Conn.
Southington Hardware Co., The, Southington, Conn
Stanley Rule & Level Co., New Britain, Conn.
Starrett Co., The L. S., Athol, Mass.

SQUARES, CENTER.

Goodell-Pratt Co., Greenfield, Mass.
Starrett Co., The L. S., Athol, Mass.

SQUARES, COMBINATION.

Almond, T. R., Mfg. Co., Ashburnham, Mass.
Brown & Sharpe Mfg. Co., **Providence, R. I.**
Goodell-Pratt Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Robinson, M. W., Co., New York, N. Y.
Starrett Co., The L. S., Athol, Mass.
Union Tool Co., Orange, Mass.

SQUARES, DOUBLE.

Starrett Co., The L. S., Athol, Mass.

SQUARES, DRAUGHTSMEN'S "T".

Keuffel & Esser Co., New York, N. Y.
Noyes—Emmert Mfg. Co., Waynesboro, Pa.
Starrett Co., The L. S., Athol, Mass.

SQUARES, MACHINISTS'.

Almond, T. R., Mfg. Co., Ashburnham, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Disston, Henry, & Sons, Inc., Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Simplex Tool Co., Woonsocket, R. I.
Starrett Co., The L. S., Athol, Mass.
Union Tool Co., Orange, Mass.

SQUARES, MICROMETER CALIPER.

Starrett Co., The L. S., Athol, Mass.

SQUARES, MITER.

Disston, Henry, & Sons, Inc., Philadelphia, Pa.
Lufkin Rule Co., The, Saginaw, Mich.

SQUARES, TRY.

Brown & Sharpe Mfg. Co., Providence, R. I.
Ruffum Tool Co., Louisiana, Mo.
Disston, Henry, & Sons, Inc., Philadelphia, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Lufkin Rule Co., The, Saginaw, Mich.
Southington Hdwe. Co., Southington, Conn.
Stanley Rule & Level Co., New Britain, Conn.
Starrett Co., The L. S., Athol, Mass.

SQUIBS, GAS, SULPHUR, ELECTRIC AND MINERS'.

Atlas Powder Co., Wilmington, Del.
Du Pont de Nemours, E. I., & Co., Wilmington, Del. (Trade names—Du Pont, D. & B., Blue Label, Powell.)
Hercules Powder Co., Wilmington, Del.
Howells—Howells Mining Drill Co., Plymouth, Pa

STACKERS OR PILERS, LUMBER.

Bradney Machine Co., Inc., Middletown, N. Y.
Soule Steam Feed Works, Meridian, Miss.

STALLS AND PARTITIONS, CLOSET, SHOWER AND DRESSING ROOM, STEEL.

Columbiana Boiler Co., Columbiana, O.
Cleveland Blow Pipe & Mfg. Co., Cleveland, O.
Ebinger, D. A., Sanitary Mfg. Co., Columbus, O.
Elkay Mfg. Co., Chicago, Ill.
Hart & Hutcninson Co., New Britain, Conn.
Litterer Bros. Mfg. Co., Chicago, Ill. (Trade names—Ferrometal, Kupraluminum.)

Meeco—Manufacturing Equipment & Engineering Co., Framingham, Mass.
Mills Co., The, Cleveland, O.
Mott, J. L., Iron Works, Trenton, N. J.
Niedecken—Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Sanymetal Products Co., The, Cleveland, O.

STALLS AND PARTITIONS, GLASS.

Bache, Semon, & Co., New York, N. Y.
Crane Co., Chicago, Ill.
Crist & Schilken Co., Inc., Pittsburgh, Pa.
Federal-Huber Co., Chicago, Ill.
Pittsburgh Plate Glass Co., Pittsburgh, Pa.

STALLS AND PARTITIONS, MARBLE.

Federal-Huber Co., Chicago, Ill.
Mott, J. L., Iron Works, Trenton, N. J.
Nelson, N. O., Marble Co., Edwardsville, Ill.
Standard Plumbing Supply Co., New York, N. Y.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Wolff Mfg. Corp., Chicago, Ill.

STALLS AND PARTITIONS, PORCELAIN.

Ebco—D. A. Ebinger Sanitary Mfg. Co., Columbus, O.
Monarch—Wolff Mfg. Corp., Chicago, Ill.
Monument Pottery Co., The, Trenton, N. J.
Mott, J. L., Iron Works, The, Trenton, N. J.
Sanitas Mfg. Co., Boston, Mass.
Trenton Potteries Co., Trenton, N. J. (Trade names—Continental, Hinsdale, Ideal, Tepeco.)
Wheeling Sanitary Mfg. Co., Wheeling, W. Va.
Woodbridge—Woodbridge Ceramic Corp., Woodbridge, N. J.

STALLS AND PARTITIONS, SLATE.

Bangor Structural Slate Co., Bangor, Pa.
Crane Co., Chicago, Ill.
East Bangor Consolidated Slate Co., The, East Bangor, Pa.
Fair Haven Marble & Marbleized Slate Co., Fair Haven, Vt.
Federal-Huber Co., Chicago, Ill.
Keenan Structural Slate Co., Bangor, Pa.
McConnell Slate Co., Brooklyn, N. Y.
Miller, O. A., Slate Co., Slatington, Pa.
Mott, J. L., Iron Works, Trenton, N. J.
Nelson, N. O., Marble Co., Edwardsville, Ill.
New York Slate Works, The, New York, N. Y.
Pennsylvania Structural Slate Co., Easton, Pa.
Phoenix Slate Co., The, Wind Gap, Pa.
Rutland Marble Mfg. Co., Rutland, Vt.
Structural Slate Co., The, Pen Argyl, Pa.
Western Slate Co., Chicago, Ill.
Wolff Mfg. Corp., Chicago, Ill.
Woodley Slate Co., Bangor, Me.

STALLS AND PARTITIONS, STONE.

Alberene Stone Co., New York, N. Y.
Diamond—Robinson Clay Products Co., Brooklyn, N. Y.
Euclid Mfg. Co., Paden City, W. Va.
Union Soapstone Co., Boston, Mass.

STALLS AND PARTITIONS, VITROLITE.

Vitrolite Company, The, Chicago, Ill.

STAMPINGS, BRASS, BRONZE AND COPPER.

Bettcher Stamping & Mfg. Co., The, Cleveland, O.
Mullins Body Corp., Stamping Dept. A., Salem, O.

STAMPS, LETTERS AND FIGURES, STEEL.

(See also "Letters and Figures.")

Alsteel Mfg. Co., Battle Creek, Mich. "Alsteel."
Banning, W. E., Stamp & Stencil Works, Inc., Syracuse, N. Y.
Chandler Co., The, Springfield, Mass.
Dickey-Grabler Co., The, Cleveland, Ohio.
Everett, A., & Son, Auburn, N. Y.
Everhot Manufacturing Co., Maywood, Ill.
Evers, Henry A., Co., Providence, R. I.
Grammes, L. F., & Sons, Allentown, Pa.
Hanson, C. H., Co., The, Chicago, Ill.
Hoggson & Pettis Mfg. Co., New Haven, Conn. "Yale."
Joslin, A. D., Mfg. Co., Manistee, Mich.
Kautz's—Fred C. Kautz & Co., Chicago, Ill.
Kasper Stamp & Seal Co., St. Louis, Mo.
Knight, H. W., & Son, Seneca Falls, N. Y.
M-G—Meldrum-Gabrielson Corp., Syracuse, N. Y.
Master Markers—Pannier Bros. Stamp Co., Inc., Pittsburgh.
Niagara Falls Metal Stamping Corp., Niagara Falls, N. Y.
Markwell—Henry Moss & Co., New York, N. Y.
Matthews, Jas. H., & Co., Pittsburgh, Pa. (Trade names—Pittsburgh Bevel, Tested Quality.)
Noble & Westbrook Mfg. Co., Hartford, Conn.
Parker Stamp Works, Inc., Hartford, Conn.
Pittsburgh Stamp Co., Inc., Pittsburgh, Pa.
Reed & Skeppstrom, Inc., Chicago, Ill.
Salco, Master—Schoder & Lombard Stamp & Die Co., Inc., New York, N. Y.
Schweizer, Chas. K., Co., St. Louis, Mo.
Schwerdtle Stamp Co., The, Bridgeport, Conn.
Shanafelt Mfg. Co., The, Canton, O.
Spencer, S. M., Mfg. Co., Boston, Mass.
Standwell—M. McNamara Stamp & Stencil Works, New York.
Stoll, D. H., Co., Inc., Buffalo, N. Y.
Superior Steel Stamp Co., Cleveland, O.
Trenton—H. Boker & Co., New York.
Weber-Erickson-Bunting Co., Pittsburgh, Pa.

STANDARDS, GAGE.

Coats—Coats Machine Tool Co., Inc., New York, N. Y.
G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.
Wismach—O. Zernickow Co., New York, N. Y.

STANDPIPES, SIAMESE.

Fries & Co., Buffalo, N. Y.

STANDS, AIR AND WATER.

Champion Pneumatic Machinery Co., Chicago, Ill.

STANDS, ASSEMBLING, FOR MACHINE SHOPS.

Angle Steel Stool Co., Plainwell, Mich.
Lupton—David Lupton's Sons Co., Philadelphia, Pa.
New Britain Machine Co., New Britain, Conn.
Pollard Bros. Mfg. Co., Inc., Chicago, Ill.
Skinner Chuck Co., The, New Britain, Conn.
Western Tool & Mfg. Co., Springfield, O. "Champion."

STANDS AND PULLEYS, BAND SAW.

Machinery Company of America, Big Rapids, Mich.

STANDS, DRAWING OR DRAFTSMEN'S.

Kidder, R. E., Worcester, Mass.
Worcester—Washburn Shops, Worcester, Mass.

STANDS, ELECTRIC DRILL.

Black & Decker Mfg. Co., The, Towson, Md.
Hisey—Hisey Wolf Machine Co., Cincinnati, O.
Jones, MacNeal & Camp, Inc., Warsaw, Ind.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Pioneer—Louisville Electric Mfg. Co., Louisville, Mich.
Speed Way—Electro-Magnetic Tool Co., Cicero, Ill.
Standard Electrical Tool Co., The, Cincinnati, O.
United States Electrical Tool Co., The, Cincinnati, O.
Van Dorn—Van Dorn Electric Tool Co., Cleveland, O.

STANDS, ELECTRIC SOLDERING TOOL.

Vulcan—Vulcan Electric Heating Co., New York, N. Y.

STANDS, ENGINE, UNIVERSAL.

Manley—The Manley Mfg. Co., York, Pa.

STANDS, FLOOR (POWER TRANSMISSION).

American Tool & Machine Co., Boston, Mass.
Barry Right Angle—Barry Co., Muscatine, Iowa.
Barry—R. & J. Dick Co., Inc., Passaic, N. J.
Bond Foundry & Machine Co., Manheim, Pa.
Brown, A. & F., Co., The, Elizabethport, N. J.
Caldwell, H. W., & Son Co., Chicago, Ill.
Chicago—Chicago Pulley & Shafting Co., Chicago, Ill.
Dodge Mfg. Corp., Mishawaka, Ind.
Falls Clutch & Machinery Co., Kent, O.
Golden's Foundry & Machine Co., Columbus, Ga.
Hanson Clutch & Machinery Co., Tiffin, O.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Hunter—James Hunter Machine Co., North Adams, Mass.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Company, Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
Mossberg Pressed Steel Corp., Attleboro, Mass.
Naylor Bros., Peekskill, N. Y.
Nordyke & Marmon Co., Indianapolis, Ind.
Pioneer- Standard Pressed Steel Co., Jenkintown, Pa. (pressed steel).
Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.
Royersford Foundry & Machine Co., Royersford, Pa.
Valley Iron Works, Williamsport, Pa.
Wood, T. B., Sons Company, Chambersburg, Pa.

STANDS, FLOOR, FOR VALVES.

Jenkins Bros., New York, N. Y.
Ludlow Valve Mfg. Co., The, Troy, N. Y.
Lunkenheimer Co., The, Cincinnati, O.
Pratt & Cady—Reading Steel Casting Co., Inc., Bridgeport, Conn.
Schutte & Koerting Co., Phialdelphia, Pa. "Schutte."
Walworth Company, Boston, Mass.

STANDS, GRINDING WHEEL.

Atkins, E. C., & Co., Indianapolis, Ind.
Badger Gas & Gasoline Engine Co., Kansas City, Kan. "Badger."
Bond Foundry & Machine Co., Manheim, Pa.
Crescent—Columbia Mfg. Co., Belleville, Ill.
Hill-Curtis Co., Kalamazoo, Mich.
Norton—Norton Co., Worcester, Mass.
Ohlen-Bishop Co., The, Columbus, O.
Royersford Foundry & Machine Co., Royersford, Pa.
Safe—Howe Safety Appliance Co., Granite City, Ill.
United States Electrical Tool Co., The, Cincinnati, O.
Valley City—Gallmeyer & Livingston Co., Grand Rapids, Mich.

STANDS, LANTERN, SIGNAL.

Berger's—Berger Specialty Mfg. Co., Richmond, Va.

STANDS AND LEGS, LAUNDRY TRAY.

Advance—J. A. Zurn Mfg. Co., Erie, Pa. Cast iron and steel.
American Foundry & Mfg. Co., St. Louis, Mo.
Bailey, Frederic T., & Co., North Scituate, Mass.
Berglas, M. P., Mfg. Co., Brooklyn, N. Y.
Bignall Co., The, Medina, N. Y.
Boston—Joseph H. Young Co., Boston, Mass.
Casey-Hedges Co., Chattanooga, Tenn.
Chicago Granitine Mfg. Co., Chicago, Ill.
Chicago Nipple Mfg. Co., Chicago, Ill.
Chicago Pipe Co., Chicago, Ill.
Clarksville Foundry & Machine Works, Clarksville, Tenn.
East Penn Foundry Co., Macungie, Pa.
Essex Foundry, Newark, N. J.
Fords Porcelain Works, Perth Amboy, N. J.
Glenn Mfg. Co., St. Charles, Ill.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Hughes Bros., Minneapolis, Minn.
J. R. S. Specialties Mfg. Co., Inc., The, New York, N. Y.
Modern Iron Works, Quincy, Ill.
North Star Foundry Co., Minneapolis, Minn.
Nustone Products Corp., New York, N. Y.
Richmond Foundry & Mfg. Co., Richmond, Va.
Riverside Foundry & Galvanizing Co., Kalamazoo, Mich.
Salem Brass & Iron Mfg. Co., Bridgeton, N. J.
Saaco—Sanitary Company of America, Linfield, Pa.
Standard Pressed Steel Co., Jenkintown, Pa.
Sanitary—Jordan & Steele Mfg. Co., Charlotte, Mich.
Swett, A. L., Iron Works, Medina, N. Y.
Washington Iron Works, Los Angeles, Cal.
Weehawken—Peerless Granite Co., Weehawken, N. J.
Wolverine Foundry Co., Detroit, Mich.
Young, Jos. H., Co., Boston, Mass. (adjustable).

STANDS, LAVATORY AND CLOSET DISPLAY.

Burke, H. M., & Bro., Philadelphia, Pa.
Jordan & Steele Mfg. Co., The, Charlotte, Mich.

STANDS, MICROMETER.

Starrett Co., The L. S., Athol, Mass.

STANDS, MULE.

American Tool & Machine Co., Boston, Mass.
Bond Foundry & Machine Co., Manheim, Pa.
Brown, A. & F., Co., The, Elizabethport, N. J.
Canton Foundry & Mach. Co., Canton, O.
Chicago Pulley & Shafting Co., Chicago, Ill.
Dodge Mfg. Corp., Mishawaka, Ind.
Eastwood Co., Benjamin, Paterson, N. J.
Golden's Foundry & Machine Co., Columbus, Ga.
Hanson Clutch & Machinery Co., Tiffin, O.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Huntsville Foundry & Machine Co., Huntsville, Ala.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Link-Belt Company, Chicago and Philadelphia, Pa.
Medart Company, The, St. Louis, Mo.
Naylor Bros., Peekskill, N. Y.
Wood, T. B., Sons Company, Chambersburg, Pa.

STANDS, OXYGEN TANK.

Meco—Modern Engineering Co., St. Louis, Mo.

STANDS, RANGE BOILER.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Alabama Pipe Co., Anniston, Ala.
American Foundry & Mfg. Co., St. Louis, Mo. (Trade names—American, Empire, Sanders, Adjustable, Star.)
Atchison Specialty Mfg. Co., Atchison, Kans. "Asco."
Bignall Co., The, Medina, N. Y.
Casey-Hedges Co., The, Chattanooga, Tenn.
Chicago Pipe Co., Chicago, Ill.
Clarksville Foundry & Machine Works, Clarksville, Tenn. (Trade names—Neal Adjustable, Western.)
Columbia Sanitary Mfg. Co., Louisville, Ky.
Connor, M. A., Lockport, N. Y.
Detroit Brass & Malleable Works, Detroit, Mich.
Eclipse—John C. Kupferle Foundry Co., St. Louis, Mo.
Dixie Metal Products Co., Inc., Birmingham, Ala.
Eastern Foundry Co., Boyertown, Pa.
East Penn Foundry Co., Macungie, Pa.
Electric Weld—John Wood Mfg. Co., Conshohocken, Pa.
Essex Foundry Co., Newark, N. J.
Fleck Bros. Co., Philadelphia, Pa.
Foster, C. H., Overland, Mo.
Gerard Mfg. Co., Dickson City, Pa.
Glenn Mfg. Co., St. Charles, Ill.
Gulf States Pipe Corp., Anniston, Ala.
Guilderland Foundry Co., Guilderland, N. Y.
Hammond Iron Co., Birmingham, Ala.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Hawks—Hugo Manufacturing Co., West Duluth, Minn.
Herco—Hercules Foundries, Inc., Los Angeles, Cal.
Humphryes Mfg. Co., The, Mansfield, O.
Koven, L. O., & Bro., Jersey City, N. J.
Kupferle, John C., Foundry Co., St. Louis, Mo.
J. R. S. Specialties Mfg. Co., Inc., The, New York, N. Y.
Lockwood—A. L. Swett Iron Works, Medina, N. Y.
Lowcell—Simplex Boiler Co., Brooklyn, N. Y.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Milford Iron Foundry, Milford, Mass.
M. I. W.—Modern Iron Works, Quincy, Ill.
Modern Mfg. Co., Cleveland, O.
Nu Idea Stand Co., Kokomo, Ind.
O-Kay—Richmond Fdy. & Mfg. Co., Richmond, Va.
Olyphant Foundry Co., Olyphant, Pa.
Peck Bros. & Co., New Haven, Conn.
Reading Foundry & Supply Co., Reading, Pa.
Robinson Mfg. Co., Cleveland, O.
Salem Brass & Iron Mfg. Co., Bridgeton, N. J.
Sanitary Company of America, Linfield, Pa. (Trade names—D. & S., Ideal, Saaco, Old Style Lockwood, O. D. S.)
Square Gee—Grabler Mfg. Co., Cleveland, O.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Sterling—Sterling Faucet Co., Newcomerstown, O.
Stringer Bros Co., Chicago, Ill.
Treaty Co., The, Greenville, O.
Trio—Blake Specialty Co., Rock Island, Ill.
Tyler, Frederick A., Albany, N. Y. "Quickset."
Universal—Central Foundry Co., New York, N. Y.
Washington Metal Products Co., Inc., Washington C. H., O.
Wesely, Chas., Co., Chicago, Ill.
Wessels, D. D., & Son, Detroit, Mich.
Wolff Mfg. Corp., Chicago, Ill.
Wolverine Foundry Co., Detroit, Mich.

STANDS, THREADING MACHINE.

Modern-Bond Co., The, Wilmington, Del.

STANDS, VISE, PORTABLE.

American Pipe Tool Co., Chicago, Ill.
Graves, W. L., Hatfield, Mass.
Martin—H. P. Martin & Sons, Owensboro, Ky.
Modern-Bond Co., The, Wilmington, Del.
New Britain—The New Britain Machine Co., New Britain, Conn.
Standard Iron Works, Inc., New York, N. Y.
Toledo—The Toledo Pipe Threading Machine Co., Toledo, O.
Western Wire Products Co., St. Louis, Mo. "Handy Andy."
Williams, J. H., & Co., Buffalo, N. Y.

STAPLES, WIRE & WROUGHT.

American Steel & Wire Co., Chicago, Ill.
Atlas—Atlas Tack Corp., Fairhaven, Mass.
Cambria Steel Co., Johnstown, Pa.
Hauer, J. B., Inc., Brooklyn, N. Y.
Hillwood Mfg. Co., The, Euclid, O.
Igoe Bros., Newark, N. J.
Interstate Iron & Steel Co., Chicago, Ill.
Keystone Steel & Wire Co., Peoria, Ill.
Northwestern Barb Wire Co., Inc., Sterling, Ill.
Pickering, R. S. Co., Sharon Hill, Pa.
Pittsburgh Perfect—Pittsburgh Steel Co., Pittsburgh, Pa.
Stanley Works, The, New Britain, Conn.
Tower Mfg. Co., Madison, Ind.
Youngstown Sheet & Tube Co., Youngstown, O. "Youngstown."

STARS, HARD IRON, FOUNDRY.

National Malleable & Steel Castings Co., Cleveland, Ohio.

STAY BOLTS.

Bourne Fuller Co., Cleveland, O. "Climax Alloy."
Detroit Seamless Steel Tubes Co., Detroit.

F. B. C. and Tate Flexible—Flannery Bolt Co., Pittsburg, Pa.
Norris Bros., Inc., Robinson, Ill.
Scully Steel & Iron Co., Chicago, Ill.
St. Louis Screw Co., St. Louis, Mo.
United States Chain & Forging Co., Pittsburgh, Pa.

STEADYRESTS, LATHE.

McCrosky Tool Corp., Meadville, Pa.

STEAMERS, BATTERY OPENING.

Hauck—Hauck Mfg. Co., Brooklyn, N. Y.
Lattner, P. M., Mfg. Co., Cedar Rapids, Ia. "Lattner."

STEAMERS, WOOD, AND RETORTS.

Barnard, Chas. A., Machine Co., Gardner, Mass.
Perfection Wood-Steaming Retort Co., Parkersburg, W. Va.

STEEL MILL PRODUCTS.

American Rolling Mill Co., The, Middletown, O. ("Armco" iron and steel sheets, etc.)
American Sheet & Tin Plate Co., Pittsburgh, Pa.
American Steel Co., Ellwood City, Pa. (Tin plate, coated wire nails, wire, wire products, etc.)
American Steel & Wire Co., Chicago, Ill.
Andrews Steel Co., Newport, Ky.
Apollo Steel Co., Apollo, Pa. (Blue annealed, cold rolled, box annealed, pickled and galvanized sheets.)
Atlas Steel Corp., Dunkirk, N. Y.
Bethlehem Steel Co., Bethlehem, Pa.
Bliss & Laughlin, Inc., Harvey, Ill. (Turned and polished shafting, cold drawn rounds, flats, squares, hexagons and screw stock, milled key seats.)
Cambria Steel Co., Johnstown, Pa.
Carnegie Steel Co., Pittsburgh, Pa. (Products: Blast furnaces; open hearth and bessemer; structural mill and bar mill. Alloy Steel Products: Plate mill; rail mill; forged and fabricated.)
Carpenter Steel Co., The, Reading, Pa. ("Stentor" alloy tool steel).
Central Alloy Steel Corp., Massillon, O. (Alloy steel —"Agathon." Blue annealed, black, galvanized, electrical and automobile sheets—"Honcan," "Uloy."
Cohoes Rolling Mill Co., Cohoes, N. Y.
Colonial Steel Co., Pittsburgh, Pa. (Tool steel.)
Colorado Fuel & Iron Co., The, Denver, Colo
Columbia Steel & Shafting Co., Pittsburgh, Pa.
Columbia Steel Corp., San Francisco, Cal.
Columbia Tool Steel Co., Chicago Heights, Ill. (tool steel).
Crucible Steel Company of America, New York, N. Y.
Cumberland Steel Co., Cumberland, Md. ("Potomac Brand" steel for line shafting, lead screws, countershafts, piston rods, arbors, etc. Turned and polished shafts.)
Darwin & Milner, Inc., Cleveland, O. ("A. B. C.," "Firex" tool steel; "Cobalterom P. R. K.," "Como," "Darwin," "Duror" high speed steel; "Neor" die steel.)
Donner Steel Co., Inc., Buffalo, N. Y. (alloy and carbon steel).
Elyria Iron & Steel Co., Cleveland, O.
Frasse, Peter A., & Co., Inc., New York, N. Y.
Glasgow Iron Co., Pottstown, Pa.
Heller Bros. Co., Newark, N. J. (Tool, alloy and special steels.)
Illinois Steel Co., Chicago, Ill.
Inland Steel Co., Chicago, Ill. (Sheets, plates, etc.)
Interstate Iron & Steel Co., Chicago, Ill.
Jessop Steel Co., Washington, Pa. (Bars, sheets, plates, bands and coils.)
Jessop, Wm., & Sons, Inc., New York, N. Y. (Tool steel.)
Jones & Laughlin Steel Co., Pittsburgh, Pa. (Structural material, bars, plates, concrete bars, cold rolled and drawn steel spikes, wire products, tin plate and pipe.)
Laclede Steel Co., St. Louis, Mo. (Steel: Tool, bearing, magnet, noncorrosive and rustless, etc.)
Lancaster Steel Products Co., Lancaster, Pa.
LaSalle Steel Co., Chicago, Ill. (Cold drawn, alloy and screw steel, shafting, etc.)
Ludlum Steel Co., Watervliet, N. Y.
Lukens Steel Co., Coatesville, Pa. (Boiler plates.)
Metal & Thermit Corp., New York, N. Y. (Ferrochronium, ferro-titanium, ferro-tungsten, ferro-vanadium, ferro-manganese.)
Michigan Steel Corp., Detroit, Mich. (Sheet steel.)
Y. (Sheets—Cold rolled, tin plate, galvanized, "Diamond Brand" open hearth.)
Milton Mfg. Co., The, Milton, Pa. (Steel and iron bars.)
National Drawn Steel Co., Cleveland, O.
National Enameling & Stamping Co., New York, N.
Newport Rolling Mill Co., Newport, Ky. ("Globe" black and galvanized steel sheets, blue annealed and electrical steel sheets; black and galvanized "Genuine Open Hearth Iron" sheets; corrugated sheets and roofing.)
Newton Steel Co., The, Youngstown, O. ("Newsteel" sheets.)
Nicetown Plate Washer, Philadelphia, Pa.
Onondaga Steel Co., Inc., Syracuse, N. Y. (Tool steel). "High ON speed."
Pacific Coast Steel Co., San Francisco, Cal.
Pardee Steel Corp., Perth Amboy, N. J.
Peerless Drawn Steel Co., Massillon, Ohio. (Screw (steel.)
Pittsburgh Steel Co., Pittsburgh, Pa. ("Pittsburgh Perfect" steel bands, hoops and wire; nails; steel wire rods and staples.)
Pittsburgh Tool Steel Wire Co., Monaca, Pa. (Cold drawn steel: tool, alloy, high speed and special shapes; "Monaca" and "Reliance" brands drill rods.)
Republic Iron & Steel Co., Youngstown, O. (Cold rolled, box annealed, black, galvanized, blued stovepipe sheets, formed metal roofing products.)
Standard Alloys Co., Pittsburgh, Pa. (Tool steel.)
Taylor-Wharton Iron & Steel Co., High Bridge, N. J. ("Tisco" manganese steel.)
Timken Roller Bearing Company, The, Canton, Ohio.
Union Drawn Steel Co., Beaver Falls, Pa. (Rounds, squares, flats, hexagons, screw steel, shafting, elevator guides, connecting rods, machine racks, etc.)
Universal Steel Co., Bridgeville, Pa.
Vanadium Alloys Steel Corp. (Red Cut Superior and Vasco tool steels.)
Vulcan Crucible Steel Co., Aliquippa, Pa. ("Vulcan" special vanadium tool steel.)
Western Automatic Machine Screw Co., The, Elyria, Ohio (cold drawn steel bars).
Wheeling Steel Corp., Wheeling, W. Va. (Cold rolled, blue annealed, galvanized, electrical and automobile sheets, and longternes; roofing, pipe, wire, etc. (Trade names—Portsmouth, Ohio Metal and Corco.)
Wood, Alan Iron & Steel Co., Philadelphia, Pa. (Blue annealed, box annealed black sheets, pickled and cold rolled sheets.)
Wheeling Steel Products Co., Wheeling, W. Va.
Worcester Pressed Steel Co., Worcester, Mass.
Wyckoff Drawn Steel Co., Pittsburgh, Pa. ("Wyco" shafting, axle steels, cold drawn flats, screw stock, special shapes).
Youngstown Sheet & Tube Co., Youngstown, O. (Sheets—cold rolled, box annealed, blue annealed, galvanized, special finished, oiled, pickled, lined, etc.; also automobile, furniture and deep drawing stock. (Trade names—"Youngstown" and "Youngstown Copperoid".)
Ziv Steel & Wire Co., Chicago, Ill. ("Wizard" tool steel.)

STEEL, ROCK DRILL.

Chicago Pneumatic Tool Co., New York, N. Y. "C. P."
Cleveland Rock Drill Co., Cleveland, O.

STEEL FOR TOOL HOLDER CUTTERS.

Armstrong Bros. Tool Co., Chicago, Ill.
Fitzsimons—Fitzsimons Co., Youngstown, O.
Mohawk—Ludlum Steel Co., Watervliet, N. Y.
Stellite—Union Carbide & Carbon Corp., New York, N. Y.
Western Tool & Mfg. Co., Springfield, O. (Trade names—Alta, Champion.)
Williams, J. H., & Co., Brooklyn, N. Y.

STEEL GRIP, WOODWORKERS'.

Warner Implement Co., Inc., Hammond, Ind.

STEEL WOOL AND SHAVINGS.

American and Ideal—American Steel Wool Mfg. Co., New York, N. Y.
Williams Company, The, London, Ohio.

STEEL, TOOL, MANUFACTURERS' ENDS.

Greenfield Tap & Die Corp., Greenfield, Mass.

STEMS, OR EXTENSIONS, DRILL.

Lord—The L. L. Lord Co., Meadville, Pa.
Mayhew Steel Products, Inc., New York, N. Y.

STEMS, VALVE.

Detroit Lubricator Co., Detroit, Mich.
Hays Mfg. Co., Erie, Pa.
Kennedy Valve Mfg. Co., Elmira, N. Y.
O-E Specialty Mfg. Co., Milwaukee, Wis.
Walworth Company, Boston, Mass.
Williams, J. H., & Co., Buffalo, N. Y.

STENCILS, COPPER, BRASS AND ZINC.

Hudson Belting Co., Worcester, Mass.
Kasper Stamp & Seal Co., St. Louis, Mo.
Markwell—Henry Moss & Co., Inc., New York, N. Y.
Pittsburg Stamp Co., Inc., Pittsburg, Pa.
Matthews & Co., Jas. H., Pittsburg, Pa.
Noble & Westbrook Mfg. Co., Hartford, Conn.
Schwerdtle Stamp Co., The, Bridgeport, Conn.

STICKS, BELT, FOR PUTTING BELTS ON MOVING PULLEYS.

Safety First—The Ready Tool Co., Bridgeport, Conn.

STICKS, BOSSING, PLUMBERS'.

Bernz, Otto, Co., Newark, N. J.
Johnson, Wm., Firm of, Newark, N. J.

STOKERS, MECHANICAL.

American Engineering Co., Philadelphia, Pa. "Taylor."
Armstrong Mfg. Co., Springfield, Ohio. (automatic and hand).
Automatic Furnace Co., Dayton, O. (Trade names—Model, Model-Automatic, Model Chicago, Dayton.)
Babcock & Wilcox Co., New York, N. Y.
Burke Engineering Co., Chicago, Ill. "Burke's."
Canada—Power Turbo Blower Co., New York, N. Y.
Canton—Canton Grate Co., Canton, O. (mechanical).
Codd Co., E. J., Baltimore, Md.
CoKal—The CoKal Stoker Corp., Chicago, Ill. (power feed).
Combustion Engineering Corp., New York, N. Y. "Coxe," "Frederick," "Green."
Cox & Sons Co., The, Bridgeton, N. J. (hand).
Detroit "V", Detroit Underfeed—Detroit Stoker Co., Detroit, Mich.
Domestic Stoker Corp'n, New York, N. Y.
Erie—Erie Foundry Co., Erie, Pa.
Gravity (hand), Twin Fire Furnace Co., Chicago, Ill.
Gibby Engineering Co., East Boston, Mass. (hand operated).
Harrington, Joseph, Co., Harvey, Ill.
Hofft, M. A., Co., Indianapolis, Ind.
Huber—Flynn & Emrich Co., Baltimore, Md. (hand).
Illinois Stoker Co., Alton, Ill.
International Ko-Shovel—Goetz Company, Chicago, Ill.
L.-C., Stowe—Laclede-Christy Clay Products Co., St. Louis, Mo.
Locomotive Stoker Co., Pittsburgh, Pa.
Manistee Iron Works Co., Manistee, Mich. "Continental."
Marion Machine Foundry & Supply Co., Marion, Ind. (hand fired).
McBurney Stoker & Equipment Co., Atlanta, Ga.
McClave—McClave-Brooks Co., Scranton, Pa.
McKenzie Furnace Co., Chicago, Ill. "McKenzie."
McMillan—James McMillan & Co., Chicago, Ill. (semi-automatic).
Moloch—Moloch Co., Kaukauna, Wis. (automatic and hand cleaning).
National—M. A. Hofft Co., Indianapolis, Ind. (hand).
Perfection Grate & Supply Co., Springfield, Mass. (hand.)
Playford—Rosedale Foundry & Machine Co., Pittsburgh, Pa.
Riley Stoker Corp., Worcester, Mass. (Trade names—Harrington, Murphy, Jones Underfeed, Riley Underfeed.)
Roach—Tepco Stoker Co., Philadelphia, Pa. (automatic).
Stroud, E. H., & Co., Chicago, Ill. (powdered coal).
Twin Fire, Gravity (hand)—Twin Fire Furnace Co., Chicago, Ill.
Vogt Bros. Mfg. Co., Louisville, Ky.
Westinghouse, New Model Roney, Westinghouse-Roney, Westinghouse-Leblanc — Westinghouse Electric & Mfg. Co., Philadelphia, Pa.
Wetzel—The Wetzel Mechanical Stoker Co., Trenton, N. J.

STOCKS, DIE.

(See also "Dies, Pipe Threading.")

American Pipe Tool Co., Chicago, Ill.
Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Mfg. Co., The, Bridgeport, Conn.
Augmore—Sands Mfg. Co., Cleveland, O.
B. & B. Tool & Machine Works, Chicago, Ill. "Keystone."
Bay State—The Bay State Tap & Die Co., Mansfield, Mass.
Bridgeport — The Curtis & Curtis Co., Bridgeport, Conn.
Buckeye—The Hart Mfg. Co., Cleveland, O.
Bull-Dog—The Oster Mfg. Co., Cleveland, O.
Butterfield & Co., Div. Union Twist Drill Co., Derby Line, Vt.
Carpenter Tap & Die Co., J. M., Pawtucket, R. I.
Clow, James B., & Sons, Chicago, Ill.
Crown Die & Tool Co., Chicago, Ill. "Crown."
C. & Y. Handy—Joseph H. Young Co., Boston, Mass.
Duplex—The Hart Mfg. Co., Cleveland, O.
Erie—Erie Tool Works, The, Erie, Pa.
Forbes—Curtis & Curtis Co., Bridgeport, Conn.
Greenfield Tap & Die Corp., Greenfield, Mass. (Trade names—Duo, G. T. D., Little Giant, O. K., Trio.)
Handy Johnson—O. A. Johnson & Sons, Chicago, Ill.
Hollands—Hollands Mfg. Co., Erie, Pa.
Lathecut—Wm. T. Johnston Co., Cincinnati, O.
Martin Machine Co., Turners Falls, Mass
Modern-Bond Co., The, Wilmington, Del.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Nye, Armstrong Pattern—Nye Tool & Machine Works, Chicago, Ill.
Ohio—Borden Co., The, Warren, O.
Phillips—Garrison-Heiland Corp., New York.
Reed—Reed Mfg. Co., Erie, Pa.
Russell—Russell Mfg. Co., Greenfield, Mass.
Saunders'—D. Saunders Sons, Inc., Yonkers, N. Y.
Thistle—Winter Bros. Co., Wrentham, Mass.
Threadwell—Threadwell Tool Co., Greenfield, Mass.
Time Saver Mfg. Co., Chicago, Ill.
Toledo—Toledo Pipe Threading Machine Co., The, Toledo, O. (See advertisement Page 315.)
Walworth Company, Boston, Mass.
Wells Tap & Die Co., Greenfield, Mass. "Pee Dee Que."
Wieland Standard—Standard Engineering Co., Ellwood City, Pa.
Williams, J. H., & Co., Buffalo, N. Y.

STOCKS, DIE, ADJUSTABLE.

Armstrong Mfg. Co., The, Bridgeport, Conn.
Beaver, Beaverette, Improved Ohio, Warren—The Borden Co., Warren, O.
Butterfield & Co., Div. Union Twist Drill Co., Derby Line, Vt.
Crane—Crane Co., Chicago, Ill.
Crown Die & Tool Co., Chicago, Ill. "Crown."
Four Die—J. D. Johnson Co., Inc., Philadelphia, Pa.
Frost, C. L., & Son, Grand Rapids, Mich.
Hart Mfg. Co., The, Cleveland, O.
Hollands Mfg. Co., Erie, Pa.
Modern-Bond Co., The, Wilmington, Del.
Moore & Moore, Inc., Reading, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Nye—The Nye Tool & Machine Works, Chicago, Ill.
Oster Mfg. Co., The, Cleveland, Ohio.
Oswego Tool Co., Oswego, N. Y.
Reed—Reed Mfg. Co., Erie, Pa.
Russell—Russell Mfg. Co., Greenfield, Mass.
Threadwell—The Threadwell Tool Co., Greenfield, Mass.
Toledo—Toledo Pipe Threading Machine Co., The, Toledo, O.
Walworth Company, Boston, Mass.

STOCKS AND DIES, GEARED, ADJUSTABLE.

Toledo Pipe Threading Machine Co., The, Toledo, O.

STOCKS AND DIES, FOR BOLTS.

Armstrong Mfg. Co., The, Bridgeport, Conn.
Brubaker, W. L. & Bros., New York, N. Y.
Butterfield & Co., Div. Union Twist Drill Co., Derby Line, Vt.
Carpenter, J. M., Tap & Die Co., The, Pawtucket, R. I.
Champion Blower & Forge Co., The, Lancaster, Pa.
Greenfield Tap & Die Corp., Greenfield, Mass. "Green River," "Lightning," "Little Giant," "Reece," "Smart."
Hart Mfg. Co., The, Cleveland, Ohio. "Duplex."
National Acme Co., The, Cleveland, O.
Oster Mfg. Co., The, Cleveland, O.
Reliable—Conant & Donelson Co., Conway, Mass.
Russell—Russell Mfg. Co., Greenfield, Mass.

STOCKS AND DIES FOR BRASS PIPE.

Armstrong Mfg. Co., Bridgeport, Conn.
B. B.—Boston Brass Co., Waltham, Mass.
Beaver—The Borden Co., Warren, O.
Butterfield & Co., Div. Union Twist Drill Co., Derby Line, Vt.
Carpenter, J. M., Tap & Die Co., The, Pawtucket, R. I.
Economy—Greenfield Tap & Die Corp., Greenfield, Mass.
Erie Tool Works, The, Erie, Pa.
G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.
Reece—Greenfield Tap & Die Corp., Greenfield, Mass.
Russell—Russell Mfg. Co., Greenfield, Mass.
Toledo—Toledo Pipe Threading Machine Co., Toledo, Ohio.
Walworth Company, Boston, Mass.

STOCKS, DIE, ELECTRIC.

Oster Mfg. Co., The, Cleveland, O.

"TOLEDO" TRADE-MARK

ON PIPE TOOLS IS YOUR CUSTOMER'S ASSURANCE OF ENDURING QUALITY.

Genuine "TOLEDO" pipe tools have for over a quarter of a century been known for their high quality, long life, and satisfactory service under the most trying conditions.

Today this "TOLEDO" trade-mark is looked for and insisted upon by experienced contractors. They have learned from years of experience that no tools equal genuine "TOLEDO'S." You therefore can sell genuine "TOLEDO" trade-mark tools knowing that your customers are assured satisfaction, for the reputation established by this company for producing perfect pipe tools stands back of every tool sold.

"TOLEDO" PIPE TOOLS

Are made in all sizes to cut and thread pipe up to 12-inch. Hand operated, they will do their work in most confined quarters, yet may be connected to a "TOLEDO" Power Drive and instantly converted into swift, highly efficient, power machines. "TOLEDO" is the ideal equipment for all piping jobs.

We will gladly send you a copy of the complete "TOLEDO" catalog on request.

THE TOLEDO PIPE THREADING MACHINE CO. - Toledo, Ohio

New York Office, 72 LAFAYETTE STREET

A "TOLEDO" NO. 2 THREADING A 4" STEAM LINE IN POSITION OVER THE ENGINE AND THE TOOL UPSIDE DOWN.

STOCKS, DIE, RATCHET.

American Pipe Tool Co., Chicago, Ill.
Armstrong Mfg. Co., The, Bridgeport, Conn.
Beaver, Beaver Junior, Beaverette—The Borden Co., Warren, O.
Champion Blower & Forge Co., The, Lancaster, Pa.
Crown Die & Tool Co., Chicago, Ill.
Enterprise—D. A. Hinman & Co., Sandwich, Ill.
Greenfield Tap & Die Corp., Greenfield, Mass. "G. T. D."
Hart Mfg. Co., The, Cleveland, O.
Modern-Bond Co., The, Wilmington, Del.
Oster Mfg. Co., The, Cleveland, Ohio.
Reed Mfg. Co., Erie, Pa.
Toledo—Toledo Pipe Threading Machine Co., The, Toledo, O.
Walworth Company, Boston, Mass.

STOCKS, DIE, THREE-WAY.

Toledo—Toledo Pipe Threading Machine Co., The, Toledo, O.
Bull Pup—The Oster Mfg. Co., Cleveland, O.

STONES, COMMUTATOR SMOOTHING.

Acme—Acme Abrasive Co., Chicago, Ill.
Acme—Green Equipment Corp., Chicago, Ill.
Ideal Commutator Dresser Co., Sycamore, Ill.
Imperial—The Martindale Electric Co., Cleveland, O.

STONES, FILTERING.

Tripoli Stone, Seneca Standard—American Tripoli Co., Seneca, Mo.
Welsh, Wm., 2733 Arbor Ave., Cincinnati, O.

STONE, POINTS.

Cincinnati Tool Co., The, Cincinnati, Ohio. "Hargrave."

STONES, RUBBING AND SHARPENING.

American Emery Wheel Works, Providence, R. I.
Christiansen, C., Chicago, Ill.
Chicago Wheel & Mfg. Co., Chicago, Ill.
Cleveland Scythe Stone—The Cleveland Abrasive Wheel Co., Cleveland, O.
Cleveland Stone Co., The, Cleveland, O.
Detroit-Star—Detroit-Star Grinding Wheel Co., Detroit, Mich.
Goodrich, A., Manufacturer, Inc., Chicago, Ill.
Luther Grinder Mfg. Co., Milwaukee, Wis. "Dimo-Grit."
Pike Mfg. Co., Pike, N. H.
Pittsburgh Grinding Wheel Co., Rochester, Pa.
Scranton Whetstone & Abrasive Wheel Co., The, Scranton, Pa. "Quick-Cut."
Superior Corundum Wheel Co., Waltham, Mass.
Sylika—American Rubbing Stone Co., Cincinnati, O.

STOOLS AND CHAIRS, BATH.

Art Brass Co., New York, N. Y.
Betzco—Frank S. Betz Co., Hammond, Ind.
Cassel, J. C., Co., Philadelphia, Pa.
Chicago Wire Chair Co., Chicago, Ill.
Crocker Chair Co., Sheboygan, Wis.
Eastern Specialty Mfg. Co., Scranton, Pa.
Eustis, J. P., Mfg. Co., Cambridge, Mass.
Meeco—Manufacturing Equipment & Engineering Co., Framingham, Mass.
Mott, J. L., Iron Works, Trenton, N. J.
Omala—The Galard Co., New York, N. Y.
Queen Mfg. Co., Chicago, Ill.
Sanitary Specialties Co., Philadelphia, Pa.
Silver & Co., Brooklyn, N. Y.
Sillcocks-Miller Co., So. Orange, N. J. (Trade names —Celluvarno, Simco.)
Smith, E. C., Mfg. Co., Chicago, Ill.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Standard Tank & Seat Co., Camden, N. J.
Superior Brass Novelty Co., New York, N. Y.
White Pyralin—C. F. Church Mfg. Co., Holyoke, Mass.

STOOLS AND CHAIRS, FACTORY, STEEL.

Buffalo Metal Furniture Mfg. Co., Buffalo, N. Y.
Chicago Wire Chair Co., The, Chicago, Ill.
Cleveland Wire Spring Co., The, Cleveland, O.
Do More Chair Co., Elkhart, Ind.
Estes, E. B., & Sons, New York, N. Y. (wood).
Ever-Hold-Automatic—Vitek Mfg. Co., Omaha, Neb.
Kalamazoo Steel Goods Co., Kalamazoo, Mich. (wood Seats). (Trade names — Kalamazoo, Square Circle).
Meeco—Manufacturing Equipment & Engineering Co., Framingham, Mass.
New Britain Machine Co., The, New Britain, Conn.
Ohio Mfg. Co., The, Painesville, O. (steel, adjustable).
Ot-Steel—Angle Steel Stool Co., Plainwell, Mich.
Pollard Bros. Mfg. Co., Inc., Chicago, Ill.
Royal Metal Mfg. Co., Chicago, Ill. "Royal-Chicago."
Set-Ezy—The Ash Cabinet & Mfg. Co., Dayton, O.
Toledo Metal Furniture Co., Toledo, O. "Uhl Steel."
Yesbera Mfg. Co., Toledo, Ohio.

STOPPERS, LADLE.

Dixon Crucible Co., Jos., Jersey City, N. J.
McCullough-Dalzell Crucible Co., Pittsburgh, Pa.

STOPPERS, SINK, SUCTION.

Atlantic Tubing Co., Providence, R. I.
Canfield, H. O., Co., Bridgeport, Conn.
Canfield Rubber Co., Bridgeport, Conn.
Daisy—Schacht Rubber Mfg. Co., Huntington, Ind.
Elkhart Rubber Works, Elkhart, Ind.
Lucky Strike—Lavelle Rubber Co., Chicago, Ill.
Wilbow—Williams-Bowman Rubber Co., Cicero, Ill.

STOPS, BENCH.

Chapin-Stephens Co., The, Pine Meadow, Conn.
Christianson, C., Chicago, Ill.
Hargrave—The Cincinnati Tool Co., Cincinnati, O.
Millers Falls Co., Millers Falls, Mass.
Morrill, Apex—Chas. Morrill, New York, N. Y.
Phoenix Hardware Mfg. Co., Buffalo, N. Y. "Phoenix."
R-W—Richards-Wilcox Mfg. Co., Aurora, Ill.
Stearns & Co., E. C., Syracuse, N. Y.
Winco—Charles Winkler, Inc., Newark, N. J.

STOPS, EMERGENCY SPRINKLER.

Johnsons—Johnson Tool Co., Inc., Providence, R. I.

STOPS, ENGINE, AND SPEED LIMIT SYSTEM.

Consolidated—Consol. Engine Stop Co., New York.
Falls—Jenkins Machine Co., Sheboygan, Wis.
Locke—Locke Regulator Co., Salem, Mass.
Monarch, Springfield—Consolidated Engine Stop Co., New York.
Simplex—E. L. Miller Mfg. Co., Kansas City, Mo.
Strong's—The Strong, Carlisle & Hammond Co., Cleveland, O.
Westinghouse Electric & Mfg. Co., Philadelphia, Pa. (steam turbine).

STOPS, MACHINE, AUTOMATIC.

Simplex—The Atlantic Co., Brooklyn, N. Y.

STOVES, BABBITT MELTING.

Buzzer—Charles A. Hones, Inc., Baldwin, Long Island, N. Y.
Improved Appliance Co., Brooklyn, N. Y.
Neway—Rowell Mfg. Co., Appleton, Wis.
S. C. & H.—The Strong, Carlisle & Hammond Co., Cleveland, O.

STOVES AND HEATERS, LAUNDRY.

Andrews Heating Co., Minneapolis, Minn.
Belleville Stove & Range Co., Belleville, Ill.
Boynton Furnace Co., The, New York, N. Y.
Burnham Boiler Corp., Irvington, N. J.
Chicago Dryer Co., Chicago, Ill.
Faultless—The Graff Furnace Co., New York, N. Y.
Floral City—Monroe Foundry & Furnace Co., Monroe, Mich.
Garland—Michigan Stove Co., Detroit, Mich.
Geyser—Thatcher Furnace Co., Newark, N. J.
Globe Stove & Range Co., The, Kokomo, Ind.
Gurney Laundry—Gurney Heater Mfg. Co., Boston, Mass.
Hudson Boiler Mfg. Co., Hoboken, N. J.
Ideal—American Radiator Co., New York, N. Y.
Imico—Illinois Malleable Iron Co., Chicago, Ill.
Johnson Gas Appliance Co., Cedar Rapids, Ia.
King—Oakland Foundry Co., Belleville, Ill.
McCain Clothes Dryer Co., Indianapolis, Ind. "Hawkins."
Magee Furnace Co., Boston, Mass.
Niagara Radiator & Boiler Co., North Tonawanda, N. Y.
Novus—National Radiator Co., Johnstown, Pa.
Perfecto—Richardson & Boynton Co., New York, N. Y.
Pierce Giant—Pierce, Butler & Pierce Mfg. Co., New York, N. Y.
Portland Stove Foundry Co., Portland, Me.
Richmond Radiator Co., New York, N. Y.
Rome Stove & Range Co., Rome, Ga.
Sims Co., The, Erie, Pa.
Spear Stove & Heating Co., James, Philadelphia, Pa.
Stamford Foundry Co., Stamford, Conn.
Stewart—Fuller & Warren Co., Troy, N. Y.
U. S. Radiator Corp., Detroit, Mich.
Weil McLain Co., Michigan City, Ind.
Whitlock-American—Whitlock Coil Pipe Co., Hartford, Conn.
Wilks, S., Mfg. Co., Chicago, Ill.

STOVES, SAND DRYER.

Punxsutawney Fdy. & Machine Co., Punxsutawney, Pa.
Sutton—Indiana Foundry Co., Indiana, Pa.

STRAIGHTENERS, SHAFT AND AXLE.
(See also "Presses, Straightening.")

Geier—The P. A. Geier Co., Cleveland, O.
Hilles & Jones—Consolidated Machine Tool Corp. of America, New York, N. Y.
Hydraulic Press Mfg. Co., The, Columbus, O. (hydraulic). "H. P. M."
Kane & Roach, Syracuse, N. Y.
Little Giant—B. B. Noyes Co., Greenfield, Mass.
Logemann Bros., Milwaukee, Wis.
Medart—The Medart Company, St. Louis, Mo.
Niles-Bement-Pond Co., New York, N. Y.
Springfield Machine Tool Co., Springfield, O. (bench). "Springfield."
Watson-Stillman Co., The, New York, N. Y.

STRAINERS, AIR AND GAS.

Mueller Steam Specialty Co., Inc., New York, N. Y.
Paget—Self-Cleaning Strainer Co., Chicago, Ill.
Tryco—Tryco Products, Inc., Westfield, Mass.
Wright-Austin Co., Detroit, Mich.

STRAINERS, BRASS.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
American Injector Co., Detroit, Mich.
American Pin Co., Waterbury, Conn.
Atchison Specialty Mfg. Co., Atchison, Kans. "Asco."
Bishop & Babcock Co., The, Cleveland, O.
Blake Specialty Co., Rock Island, Ill.
Boosey—Greenwood Mfg. Co., Detroit, Mich.
Bridgeport Brass Co., Bridgeport, Conn.
Brey & Krause Mfg. Co., Allentown, Pa.
Cleveland Faucet Co., The, Cleveland, O.
Cook, A. D., Inc., Lawrenceburg, Ind.
Crane Co., Chicago, Ill.
Exeter Brass Works, Exeter, N. H.
Federal-Huber Co., Chicago, Ill.
Fries & Co., Buffalo, N. Y.
Frost Mfg. Co., Kenosha, Wis.
Goetz Brass Co., Chicago, Ill.
Haydenville Co., The., Haydenville, Mass.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Jenkins Bros., New York, N. Y.
Mueller Co., Decatur, Ill.
Ohio Injector Co., The, Wadsworth, O.
Peck Bros. & Co., New Haven, Conn.
Powell, Wm., Co., The, Cincinnati, O. (for gasoline).
Sarco Co., Inc., New York, N. Y.
Sherwood Brass Works, Detroit, Mich.
Speakman Co., Wilmington, Del.
Star—U. T. Hungerford Brass & Copper Co., New York, N. Y.
Street & Kent Mfg. Co., Chicago, Ill.
Walworth Company, Boston, Mass.
Waterbury Mfg. Co., Waterbury, Conn.
Washburn Co., The, Wire Goods Co. Div., Worcester, Mass.
Wolff Mfg. Corp., Chicago, Ill.
Woodward-Wanger Co., Philadelphia, Pa.

STRAINERS, CAST IRON.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
Fee & Mason Mfg. Co., New York, N. Y.
Glenn Mfg. Co., St. Charles, Ill.
Haydenville Co., The, Haydenville, Mass.
Jones Hollow Ware Co., Baltimore, Md.
Jumbo Heater & Mfg. Co., The, Cleveland, O.
Kincaid Bros., Pittsburgh, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Modern Iron Works, Quincy, Ill.
Richmond Foundry & Mfg. Co., Richmond, Va.
Riverside Foundry & Galvanizing Co., Kalamazoo, Mich.
Walworth Company, Boston, Mass.
Watson & McDaniel Co., Philadelphia, Pa.
Wolverine Foundry Co., Detroit, Mich.

STRAINERS, CESSPOOL

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Alabama Pipe Co., Anniston, Ala.
American Foundry & Mfg. Co., St. Louis, Mo.
Bignall Co., Medina, N. Y.
Blake Specialty Co., Rock Island, Ill.
Central Foundry Co., New York, N. Y.
Clarksville Foundry & Machine Works, Clarksville Tenn.
Clow, James B., & Sons, Chicago, Ill.
Crampton-Farley Brass Co., Kansas City, Mo.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
Farnan Brass Works Co., Cleveland, O.
Federal-Huber Co., Chicago, Ill.
Fee & Mason Mfg. Co., New York, N. Y.
Glenn Mfg. Co., St. Charles, Ill.
Gulf States Pipe Corp., Anniston, Ala.
Kokomo Brass Works, Kokomo, Ind.
Krenz Copper & Brass Works, Oscar, San Francisco, Cal.
Marvel—Detroit Marvel Brass Mfg. Co., Detroit, Mich.
Newbury Mfg. Co., Monroe, N. Y.
Richmond Foundry & Mfg. Co., Inc., Richmond, Va.
Saaco—Sanitary Company of America, Linfield, Pa.
Salem Brass & Iron Mfg. Co., Bridgeton, N. J.
South Haven Foundry & Machine Co., South Haven, Mich.
Swett Iron Works, A. L., Medina, N. Y.
Union Metal Works, Inc., Chelsea, Mass.
Wade Iron Sanitary Mfg. Co., Chicago, Ill.
Wolverine Foundry Co., Detroit, Mich.

STRAINERS, DRINKING FOUNTAIN.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
Crane Co., Chicago, Ill.
Sarco Co., Inc., New York, N. Y.
Self Cleaning Strainer Co., Chicago, Ill.
Street & Kent Mfg. Co., Chicago, Ill.

STRAINERS, FOOT VALVE.

Cook, A. D., Inc., Lawrenceburg, Ind.
Flagg, Stanley G., & Co., Philadelphia, Pa.
Haydenville Co., The, Haydenville, Mass.
Newbury, Jay H., & Son, Goshen, N. Y.
Newman Mfg. Co., Elizabeth, N. J.
Walworth Company, Boston, Mass.

STRAINERS, GASOLINE.

Trusty—Lunkenheimer Co., Cincinnati, O.
Wilcox, Crittenden & Co., Middletown, Conn.

STRAINERS, HOSE.

American Injector Co., Detroit, Mich.
Boston Woven Hose & Rubber Co., Cambridge, Mass
Callahan, Cornelius, Co., The, Boston, Mass.
Edna Brass Mfg. Co., The, Cincinnati, O.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Moak Machine & Supply Co., Port Huron, Mich.
Ohio—The Ohio Injector Co., Wadsworth, O. (brass).
Seattle Brass Co., Seattle, Wash.
Sherman, H. B., Mfg. Co., Battle Creek, Mich.

STRAINERS, LOCOMOTIVE.

Ohio Injector Co., The, Wadsworth, O.

STRAINERS, OIL.

The Anthony Co., Long Island City, N. Y.
Combustion Service Corp'n, New York, N. Y.
G-R—The Griscom-Russell Co., New York.
Gwynn Engineering Co., Pittsburgh, Pa.
Lalor Fuel Oil System, Co., Baltimore, Md.
Leiman Bros., New York, N. Y.
Mahrvel—Mahr Mfg. Co., Minneapolis, Minn.
Mueller Steam Specialty Co., Inc., New York, N. Y.
Peeco—Plant Eng. & Equipment Co., Brooklyn, N. Y.
Richardson-Phenix Co., Milwaukee, Wis.
Rockwell, W. S., Co., New York, N. Y.
Self Cleaning Strainer Co., (Harry E. Paget, Prop.), Chicago, Ill. "Paget Twin Straitaway."
Tate-Jones & Co., Inc., Leetsdale, Pa.
White Fuel Oil Engineering Corp., New York. "White."
Wright-Austin—Wright-Austin Co., Detroit, Mich.

STRAINERS, PIPE, FOR STEAM, AIR, OIL AND WATER.

Douglas—W. & B. Douglas, Middletown, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Sarco Company, Inc., New York, N. Y.
Swartwout—The Swartwout Co., Cleveland, O.
Wright-Austin Co., Detroit, Mich.
Zurn, J. A., Mfg. Co., Erie, Pa.

STRAINERS, ROOF, CAST IRON.

Clow, James B., & Sons, Chicago, Ill.

STRAINERS, SEDIMENT, DRIP POCKET.

Fisher Governor Co., Marshalltown, Iowa.
Sarco Co., Inc., New York, N. Y.

STRAINERS, SHOWER AND URINAL STALL.

American Foundry & Mfg. Co., St. Louis, Mo.
Brey & Krause Mfg. Co., Allentown, Pa.
Clow, James B., & Sons, Chicago, Ill.
Columbus Brass Co., Columbus, O.
Crane Co., Chicago, Ill.
Douglas Co., John, Cincinnati, O.
Exeter Brass Works, Exeter, N. H.
Federal-Huber Co., Chicago, Ill.
Fee & Mason Mfg. Co., New York, N. Y.
Fort Pitt—Acheson Mfg. Co., Rankin, Braddock, Pa.
Frank Bros., New York, N. Y.
Fries & Co., Buffalo, N. Y.
Frost Mfg. Co., Kenosha, Wis.

Goetz Brass Co., Chicago, Ill.
Hach, Richard G., New York, N. Y.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Hilton Brass Foundry, Hilton, N. J.
Lehnert & Co., New York, N. Y.
McIntire, F. N., Brass Works, Boston, Mass.
McShane Bell Foundry Co., Baltimore, Md.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Mott, J. L., Iron Works, Trenton, N. J.
Peck Bros. & Co., New Haven, Conn.
Perkes, Chas., Co., Philadelphia, Pa.
Pilot—Hedges & Bro., Newark, N. J.
Sanitas Mfg. Co., Boston, Mass.
Sherwood Brass Works, Detroit, Mich.
S. & K.—Street and Kent Mfg. Co., Chicago, Ill.
Speakman Co., Wilmington, Del.
Testite—Groeniger Mfg. Co., Columbus, O.
Trenton Brass & Machine Co., Trenton, N. J.
Union Metal Works, Inc., Chelsea, Mass.

STRAINERS, SINK.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American Brass Novelty Co., Grand Haven, Mich.
American Foundry & Mfg. Co., St. Louis, Mo.
Ampinco—American Pin Co., Waterbury, Conn.
Barnes Mfg. Co., The, Mansfield, O. (bottlers).
Boston—The Washburn Co., Worcester, Mass.
Brey & Krause Mfg. Co., Allentown, Pa.
Bridgeport Brass Co., Bridgeport, Conn.
Brooklyn—Silver & Co., Brooklyn, N. Y.
Butterworth Supply Co., Philadelphia, Pa.
Clean Sweep—Detroit Sanitary Supply Co., Detroit, Mich.
Eclipse—Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Essex Foundry Co., Newark, N. J.
Exeter Brass Works, Exeter, N. H.
Frank Bros., New York, N. Y.
Frost Mfg. Co., The, Kenosha, Wis.
Garrison-Heiland Corp., New York, N. Y.
Gray Iron Foundry Co., Reading, Pa.
Guilderland Foundry Co., Guilderland, N. Y.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Jones Hollow Ware Co., Baltimore, Md.
Kitchen Katch-All—The Ohio Metal Utensil Co., Cleveland, O.
Peerless Mfg. & Supply Co., New York, N. Y.
Reading Foundry & Supply Co., Reading, Pa.
Riverside Foundry & Galvanizing Co., Kalamazoo, Mich.
Richmond Foundry & Mfg. Co., The, Richmond, Va.
Rumsey & Co., Ltd., Seneca Falls, N. Y.
Sanitary Company of America, Linfield, Pa.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Trenton Brass & Machine Co., Trenton, N. J.
Union Metal Works, Chelsea, Mass.
Waterbury Mfg. Co., Waterbury, Conn.
Wise, J. B., Inc., Watertown, N. Y.

STRAINERS, SINK, PLUG.

Frost Mfg. Co., The, Kenosha, Wis.

STRAINERS, STEAM PUMP.

Andale—Andale Engineering Co., Philadelphia, Pa.
Buffalo Steam Pump Co., Buffalo, N. Y. "Buffalo."
Cook, A. D., Inc., Lawrenceburg, Ind.
Illinois—Illinois Engineering Co., Chicago, Ill.
McAlear Mfg. Co., The, Chicago, Ill.
Self Cleaning Strainer Co., (Harry E. Paget, Prop.), Chicago, Ill. "Paget Straitaway."
Peeco—Plant Eng. & Equipment Co., Brooklyn, N. Y.
Sarco Co., Inc., New York, N. Y.
Spraco—Spray Engineering Co., Boston, Mass.
Worthington Pump & Machinery Corp., New York, N. Y.

STRAINERS, STEAM TRAP.

Boylston Steam Specialty Co., Chicago. "Richter."
Cook, A. D., Inc., Lawrenceburg, Ind.
McAlear Mfg. Co., The, Chicago, Ill.
Peco—Pittsburgh Engineering Co., Jeannette, Pa.
Sarco—Sarco Company, Inc., New York, N. Y.
Wright-Austin Co., Detroit, Mich.

STRAINERS, SUCTION PIPE.

(See also "Points, or Strainers, Drive Well.")

American Injector Co., Detroit, Mich.
American Spiral Pipe Works, Chicago (large sizes).
American—The American Well Works, Aurora, Ill.
Bishop & Babcock Co., The, Cleveland, O.
Chicago Well Supply Co., Chicago, Ill.
Cook, A. D., Inc., Lawrenceburg, Ind.
Douglas, W. & B., Middletown, Conn. "Douglas."
Dunham Co., Inc., C. A., Chicago, Ill.
Illinois Engineering Co., Chicago, Ill. "Eclipse, Illinois."
Elkhart Brass Mfg. Co., Elkhart, Ind.
Emerson—The Emerson Pump & Valve Co., Inc., Alexandria, Va.
Hayes Pump & Planter Co., Galva, Ill.
Kieley & Muller, New York, N. Y. "Kieley."
L. & G.—Lalance & Grosjean Mfg. Co., New York.
Layne & Bowler Co., Memphis, Tenn.
McAlear Mfg. Co., The, Chicago, Ill.
McEvoy Wireless—J. H. McEvoy & Co., Houston, Texas.
Mueller Steam Specialty Co., Inc., New York, N. Y.
Myers, F. E., & Bro. Co., Ashland, O.
National Tube Co., Pittsburgh, Pa. "N. T. C."
Newbury, Jay H., & Son, Goshen, N. Y.
Perkes, Charles, Co., Philadelphia, Pa.
Richter—Boylston Steam Specialty Co., Chicago, Ill.
Robinson Mfg. Co., The, Cleveland, O.
Sherman Mfg. Co., H. B., Battle Creek, Mich.
United Brass & Aluminum Mfg. Co., Port Huron, Mich.
Wall, P., Mfg. & Supply Co., The, Pittsburgh, Pa.
Warlo—Ward-Love Pump Corp., Rockford, Ill.
Wise, J. B., Watertown, N. Y.

STRAINERS, TRACTION.

Sherman, H. B., Mfg. Co., Battle Creek, Mich.

STRAINERS, VALVE.

Boylston Steam Specialty Co., Chicago, Ill. "Boylston."
Cash, A. W., Company, Decatur, Ill.
Cook, A. D., Inc., Lawrenceburg, Ind.
Davis—G. M. Davis Regulator Co., Chicago, Ill.
Golden Anderson Valve Specialty Co., Pittsburgh, Pa. "Ideal."
Hayden & Derby Mfg. Co., The, New York, N. Y.
McAlear Mfg. Co., The, Chicago, Ill.
Sarco—Sarco Company, Inc., New York, N. Y.
Schutte & Koerting Co., Philadelphia, Pa.
Walworth Company, Boston, Mass.

STRAINERS, WASTE, AND COUPLING COMBINED.

Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.

STRAINERS, WATER, FOR SUPPLY PIPES.

American District Steam Co., N. Tonawanda, N. Y.
Ansonia Sanitary Mfg. Co., New York, N. Y.
Boylston Steam Specialty Co., Chicago, Ill. "Boylston."
Cook, A. D., Inc., Lawrenceburg, Ind.
Eclipse—Illinois Engineering Co., Chicago, Ill.
McAlear Mfg. Co., The, Chicago, Ill.
McDonough Coal Saving Corp., Detroit, Mich.
Nathan Mfg. Co., New York.
Paget—Self-Cleaning Strainer Co., Chicago, Ill.
Peeco—Plant Engineering & Equipment Co., Brooklyn, N. Y.
Purity—The Haydenville Co., Haydenville, Mass.
Rosedale Foundry & Machine Co., Pittsburgh, Pa. "Holt."
Ross Heater & Mfg. Co., Inc., Buffalo, N. Y.
Tryco Products, Inc., Westfield, Mass.
Twin Strainers—Elliott Co., Jeanette, Pa.
Westinghouse Special — Pittsburgh Meter Co., East Pittsburgh, Pa.

STRAPPING, LOOM.

Bancroft Belting Co., The, Boston, Mass.
Chicago Rawhide Mfg. Co., The, Chicago, Ill.
Eagle Counter & Leather Co., The, Cincinnati, O.
Graton & Knight Mfg. Co., Worcester, Mass. "Spartan."
Greenville Belting Co., Greenville, S. C.
Hervey, F. L., & Co., Inc., Fall River, Mass. "Hervey."
Hoggson & Pettis Mfg. Co., The, New Haven, Conn.
Jacobs, E. H., Mfg. Co., Danielson, Conn.
Jewell—Jewell Belting Co., Hartford, Conn.
Ladew, Edw. R., Co., Inc., New York, N. Y.
Union Belt Co., Fall River, Mass.
Warren Belting Co., Worcester, Mass. "Warren."
Williams, I. B., & Sons, Dover, N. H.

STRAPS, HOSE.

American Foundry & Mfg. Co., St. Louis, Mo.
Hays Mfg. Co., Erie, Pa.

STRAPS, LEATHER AND RAWHIDE, WEB OR WOVEN.

Alexander—Alexander Bros., Inc., Philadelphia, Pa.
Bond, Charles, Co., Philadelphia, Pa.
Buffalo Weaving & Belting Co., Buffalo, N. Y.
Charlotte Clean Quality—Charlotte Leather Belting Co., Charlotte, N. C.
Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Eagle Counter & Leather Co., The, Cincinnati, O.
Eagle—Eagle Belting Co., Chicago, Ill.
Gibraltar—Burton Greene Leather Co., Chicago, Ill.

Graton & Knight Co., Worcester, Mass.
Hide Leather & Belting Co., Indianapolis, Ind.
Hudson Belting Co., Worcester, Mass.
Ladew, Edward R., Co., Inc., New York, N. Y.
Leather Parts Co., Indianapolis, Ind.
McLeod Leather & Belting Co., Greensboro, N. C.
Moloney Belting Co., Chicago, Ill.
New York Leather Belting Co., New York, N. Y.
Raniville, F., Co., Grand Rapids, Mich.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Reinhold Belting & Strap Co., Brooklyn, N. Y.
Schieren, Charles A., Co., New York, N. Y.
Sutherland Leather & Felt Co., Detroit, Mich.
Williams, I. B., & Sons, Dover, N. H.

STRAPS, LUG, CHECK AND SHUTTLE.

Bond, Charles, Co., Philadelphia, Pa.
Jacobs Verybest—E. H. Jacobs Mfg. Co., Danielson, Conn.
Victor-Balata & Textile Belting Co., New York. "Victor."
O. K., Warren—Warren Belting Co., Worcester, Mass.

STRAPS, PIPE.

Ackerman-Johnson Co., Chicago, Ill.
Acme Pipe Strap Co., Detroit, Mich. "Acme."
Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Ahlander—Thos. Wrigley Co., Chicago, Ill.
American Nut & Bolt Fastener Co., The, Pittsburgh, Pa.
B. B.—Berger Bros. Co., Philadelphia, Pa.
Brey & Krause Mfg. Co., Allentown, Pa.
Cann & Saul Steel Co., Philadelphia, Pa.
Eagle Mfg. Co., Wellsburg, W. Va.
Fee & Mason Mfg. Co., New York, N. Y.
Grabler Mfg. Co., Cleveland, O.
Guilderland Foundry Co., Guilderland, N. Y.
Haydenville Co., The, Haydenville, Mass.
Heckman Tool & Mfg. Co., Chicago, Ill.
Illinois Malleable Iron Co., Chicago, Ill.
Jones Hollow Ware Co., Baltimore, Md.
Lalance & Grosjean Mfg. Co., New York, N. Y.
McCormack, E. A., New York, N. Y.
Madewell Mfg. Co., Oakland, Cal. "Madewell."
Modern Mfg. Co., The, Cleveland, O.
Mott Iron Works, The J. L., New York, N. Y.
Perfection—The Beaton & Cadwell Mfg. Co., New Britain, Conn.
Phillips—Newbury Mfg. Co., Monroe, N. Y.
Richmond Fdy. & Mfg. Co., Richmond, Va.
Robinson Mfg. Co., The, Cleveland, O.
Rumsey's—Rumsey & Co., Ltd., Seneca Falls, N. Y.
Rundle Mfg. Co., Milwaukee, Wis.
Vollrath—The Vollrath Co., Sheboygan, Wis.
Wall, P., Mfg. Supply Co., Pittsburgh, Pa.
Walworth Company, Boston, Mass.
Wise, J. B., Inc., Watertown, N. Y.

STRETCHER, WASHER, FLUSH PIPE.

Bass Bros., New York, N. Y.

STRETCHERS, PULLEY LAGGING.

Buller Coupler Company, Hillsboro, Kan.

STRETCHERS, SAW.

Machinery Co. of America, Big Rapids, Mich.
Rogers, Samuel C., & Co., Buffalo, N. Y.
Wardwell Mfg. Co., Cleveland, O.

STRETCHERS, WIRE, LINEMEN'S.

Burgess-Norton Mfg. Co., Geneva, Ill. "Zims' Duplex."
Matthews, W. N., Corp., St. Louis, Mo.
Northwestern Barb Wire Co., Inc., Sterling, Ill.
Star—Hunt, Helm, Ferris & Co., Harvard, Ill.

STRINGERS, FOR OVERHEAD TRANSMISSION.

Midwest Steel & Supply Co., Bradford, Pa.

STRINGERS, STEEL.

Midwest Steel & Supply Co., Bradford, Pa.

STRIPPERS, WIRE, INSULATION.

Pyramid Products Co., Chicago, Ill.

STRIPS, BRAZING.

Phillips-Laffitte Co., The, Philadelphia, Pa.

STUD-SETTERS, OPENING.

Errington Mechanical Laboratory, New York, N. Y.

STUDS, BELT.

Blake & Johnson Co., The, Waterbury, Conn.
Blake's—Greene, Tweed & Co., New York, N. Y.
Blake, L. X., 20th Century—Manufacturers' Belt Hook Co., Chicago, Ill.

STUDS, MILLED.

(See, also, "Screws, Cap, Set and Machine.")

Atlas Bolt & Screw Co., Cleveland, O.
Bard Mfg. Co., Royersford, Pa.
Belco—The Bell Company, Buffalo, N. Y.
Blake & Johnson Co., Waterbury, Conn.
Bethlehem Steel Co., Bethlehem, Pa.
Buffalo Nipple & Machine Co., Inc., Buffalo, N. Y.
Chicago Screw Co., The, Chicago, Ill.
Cleveland Cap Screw Co., Cleveland, Ohio.
Cleveland Wrought Products Co., Cleveland, O.
Detroit Screw Works, Detroit, Mich. (Milled and rough.)
Eastern Bolt & Nut Co., Providence, R. I.
Ferry Cap & Set Screw Co., The, Cleveland, O.
Haskell W. H., Mfg. Co., The, Pawtucket, R. I. (Milled and rough.)
Hartford Machine Screw Co., Hartford, Conn.
National Acme Co., The, Cleveland, O. "Namco."
New England Bolt Co., Inc., Everett, Mass.
Ottemiller, Wm. H. & Co., The, York, Pa.
Paragon Tool Co., Seattle, Wash.
Reliable Cap & Set Screw Co., Chicago, Ill.
Rochester Machine Screw Co., Rochester, N. Y.
St. Louis Screw Co., St. Louis, Mo.
Steward & Romaine Mfg. Co., Philadelphia, Pa.
Victor—Victor Products Corp., Chicago, Ill.
Western Automatic Mach. Screw Co., The, Elyria, O.
Western Screw Products Co., St. Louis, Mo.

SUPERHEATERS, STEAM.

Babcock & Wilcox Co., New York, N. Y.
Badenhausen Corp., Cornwells Heights, Pa. "Simplex."
Hussey—Hussey, McCann & Co., New York, N. Y.
Improved Appliance Co., Brooklyn, N. Y.
Lancaster Iron Works, Inc., Lancaster, Pa.
Pardel Corp., Philadelphia, Pa. "Parker."
Power Plant Equipment Co., Kansas City, Mo.
Power Specialty Co., New York, N. Y.
Superheater Co., The, New York, N. Y. "Elesco."

SUPPLIES, BASIN AND BATH.

American Sanitary Mfg. Co., Abingdon, Ill.
American Foundry & Mfg. Co., St. Louis, Mo.
American Pin Co., Waterbury, Conn.
Dearborn Brass Co., Cedar Rapids, Ia.
Edwardsville Brass Co., Edwardsville, Ill.
Em Ess—The Meyer-Sniffen Co., New York, N. Y.
Federal-Huber Co., Chicago, Ill.
Goetz Brass Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Little, M. S., Mfg. Co., Hartford, Conn.
Loyal Brass Co., Cleveland, O.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Mueller Co., Decatur, Ill.
Rundle-Spence Mfg. Co., Milwaukee, Wis.
Standard Brass Mfg. Co., Utica, N. Y.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Street & Kent Mfg. Co., Chicago, Ill.
Standard—Union Brass & Metal Mfg. Co., St. Paul, Minn.
Test-Tite—Test-Tite Co., Philadelphia, Pa.
United Brass Mfg. Co., Cleveland, O.
Wise, J. B., Inc., Watertown, N. Y.
Woodward-Wanger Co., Philadelphia, Pa.

SUPPLIES AND WASTES, BASIN, COMBINED.

American Foundry & Mfg. Co., St. Louis, Mo.
American Sanitary Mfg. Co., Abingdon, Ill.
Bridgeport Brass Co., Bridgeport, Conn.
Connecto—Wolff Mfg. Corp., Chicago, Ill.
Crane Co., Chicago, Ill.
Federal-Huber Co., Chicago, Ill.
Kretschmer Mfg. Co., Dubuque, Ia.
Little, M. S., Mfg. Co., Hartford, Conn.
Speakman Co., Wilmington, Del.
Standard Brass Mfg. Co., Utica, N. Y.
Street & Kent Mfg. Co., Chicago, Ill.
United Brass Mfg. Co., Cleveland, O.
Walworth Company, Boston, Mass.
Wise, J. B., Inc., Watertown, N. Y.

SUPPLIES AND WASTES, BATH, COMBINED.

American Foundry & Mfg. Co., St. Louis, Mo.
American Sanitary Mfg. Co., Abingdon, Ill.
Deshler—Speakman Co., Wilmington, Del.
Goetz Brass Co., Chicago, Ill.
Haydenville Co., The, Haydenville, Mass.
Kretschmer Mfg. Co., Dubuque, Ia.
Little, M. S., Mfg. Co., The, Hartford, Conn.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Monitor—Wolff Mfg. Corp., Chicago, Ill.
Mueller-Stewart—Mueller Co., Decatur, Ill.
Ross & Gade Co., Inc., New York, N. Y.
Standard Brass Mfg. Co., Utica, N. Y.
Sterling—Sterling Faucet Co., Newcomerstown, O.
Test-Tite—Test-Tite Co., Philadelphia, Pa.
Wise, J. B., Inc., Watertown, N. Y.

SUPPORTS, PIPE.

Fits-Em-All—Blake Specialty Co., Rock Island, Ill.
Kellogg, M. W., Co., The, New York, N. Y.
Loway—A. F. Way Co., Inc., Hartford, Conn.
Ric-Wil—The Ric-Wil Co., Cleveland, O.
Tyler—R. W. Sharon Co., Pittsburgh, Pa.
Walworth Company, Boston, Mass.

SURFACERS AND FINISHERS, CONCRETE, ELECTRIC.

Berg—Concrete Surfacing Machinery Co., Cincinnati, O.

SURFACERS, WOOD.

Fox—Fox Supply Co., Brooklyn, Wis.
Hermance Machine Co., Williamsport, Pa.
Knight Mfg. Co., The, Canton, O.
Lane Mfg. Co., Montpelier, Vt.
Newman Machine Co., Greenboro, N. C.
Schlueter, M. L., Chicago, Ill.
Wayvell, Chappell & Co., Waukegan, Ill.
Weber Mfg. Co., West Allis, Wis. "Weber."
Whitney—Baxter D. Whitney & Son, Winchendon, Mass.
Woods Machine Co., S. A., Boston, Mass.
Yates, P. B., Machine Co., Beloit, Wis.

SWAGES, PNEUMATIC.

Draper—Draper Mfg. Co., The, Port Huron, Mich.

SWAGES, SAW.

Ajax Mfg. Co., Pittsburgh, Pa. "Mixter."
Atkins, E. C. & Co., Indianapolis, Ind.
Armstrong—Armstrong Mfg. Co., Portland, Ore.
Champion Roller Die—Edwin G. Shortridge & Co., Kokomo, Ind.
Crowell, D. J., Buffalo, N. Y. "Crowell."
Disston, Henry, & Sons Co., Philadelphia, Pa.
Hanchett, American, Newell, Rhodes, Kinney, Pribnow—Machinery Co. of America, Big Rapids, Mich.
Hoe, R., & Co., New York, N. Y.
Moak Machine & Supply Co., Port Huron, Mich.
Ohlen-Bishop Co., The, Columbus, O.
Simonds Saw & Steel Co., Fitchburg, Mass.
Southern Saw Works, Atlanta, Ga.
White, A. E., Machine Works, Eau Claire, Wis. "Champion."

SWINGS, BARREL.

Leavitt Machine Co., Orange, Mass.

SWITCHES, ELECTRIC, INTERLOCKING.

Lewellen Mfg. Co., Columbus, Ind.

SWITCHES, MONORAIL.

Richards-Wilcox Mfg. Co., Aurora, Ill.

SWITCHES, TANK.

Banner—John J. Leahy Electrical Supplies, Inc., New York, N. Y.
Blackburn-Smith Corp., New York, N. Y.
Decatur Pump Co., Decatur, Ill.
Federal Gauge Co., The, Chicago, Ill.
Sundh Electric Co., Newark, N. J. "Electrite."
Watson-Stillman Co., The, New York, N. Y.

SWIVELS, DROP FORGED.

Broderick & Bascom Rope Co., St. Louis, Mo.
Michigan Bolt & Nut Co., Detroit, Mich.
Laughlin, Thomas, Co., The, Portland, Me.
Triumph—Bridgeport Chain Co., Bridgeport, Conn.
Warren Axe & Tool Co., Warren, Pa.
Wilcox, Crittenden Co., Middletown, Conn.
Vulcan—J. H. Williams & Co., Buffalo, N. Y.

SYPHONS, ACID.

Pyrene—Pyrene Mfg. Co., Newark, N. J.

SYPHONS, SEPTIC TANK CONTROL.

Diener, Geo. W., Mfg. Co., Chicago, Ill.
Kaustine—Kaustine Company, Inc., Buffalo, N. Y.

SYSTEMS, FUEL OIL PUMPING.

(See also "Pumps, Oil, Fuel.")
Gardner Governor Co., Quincy, Ill.
Hills-McCanna Co., Chicago, Ill.
Lalor Fuel Oil System Co., Baltimore, Md.
Leahy Mfg. Co., Los Angeles, Cal.
National Supply Co., Chicago, Ill. "Billow."
Quigley Furnace Specialties Co., New York, N. Y.
Tate-Jones & Co., Inc., Leetsdale, Pa.
Wayne Tank & Pump Co., Ft. Wayne, Ind.
White Fuel Oil Engineering Corp., New York. "Tod." "White."
Witts—G. E. Witt Co., Inc., San Francisco, Cal.

SYSTEMS, FUEL OIL STORAGE.

Tate-Jones & Co., Inc., Leetsdale, Pa.

SYSTEMS, GASOLINE STORAGE, UNDERGROUND.

Air-Tight Steel Tank Co., Pittsburgh, Pa.
American—The American Oil Pump & Tank Co., Dayton, O.
Ben Hur—Johnson Acetylene Gas Co., Crawfordsville, Ind.
Bowser & Co., S. F., Fort Wayne, Ind.
Climax—Keystone Boiler & Foundry Co., Landisville, Pa.
Columbian—Columbian Steel Tank Co., Kansas City, Mo.
Dayton—Dayton Pump & Manufacturing Co., Dayton, O.
Gilbert & Barker—Gilbert & Barker Mfg. Co., Springfield, Mass.
Groetken Pump Co., The, Aurora, Ill.
Hamburg Boiler Works, Hamburg, Pa.
Hoosier—Flint & Walling Mfg. Co., Kendallville, Ind.
Imperial, Winner, Perfection—Western Oil Pump & Tank Co., St. Louis, Mo.
Joliet—Amco Sales Corp., Chicago, Ill.
Leader Iron Works, Decatur, Ill.
Milwaukee Tank Works, Milwaukee, Wis.
Quality—The Heil Co., Milwaukee, Wis.
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.
Sexton Can Co., Boston, Mass.
Tokheim Oil Tank & Pump Co., Fort Wayne, Ind.
Wayne Tank & Pump Co., Ft. Wayne, Ind.
W. & B.—Wilson & Bennett Mfg. Co., Chicago, Ill.

SYSTEMS, IRRIGATION, LAWN AND GARDEN.

Cornell, W. G., Co., New York, N. Y.
Dayton—The Dayton Irrigation Co., Dayton, O.
Foamite-Childs Corp., Utica, N. Y.
The Skinner Irrigation Co., Troy, O.

SYSTEMS, WATER SUPPLY, PNEUMATIC.

Aldrich—Aldrich Pump Co., Allentown, Pa.
Atlas Power Pump—The Deming Co., Salem, O.
Aurora—Steel Tank & Products Corp., Chicago, Ill.
Bailey & Farrell Mfg. Co., Pittsburg, Pa.
Bishop & Babcock Co., The, Cleveland, O.
Caldwell Co., W. E., Louisville, Ky.
Chicago Pump Co., The, Chicago, Ill.
Columbian Steel Tank Co., Kansas City, Mo.
Deming Co., The, Salem, O. Trade names—Atlas, Marvel, Straight Line.
Domestic Engine & Pump Co., Shippensburg, Pa.
Douglas, W. & B., Co., Middletown, Conn.
Du Moin—Thompson Mfg. Co., Des Moines, Ia.
Duro—Duro Pump & Mfg. Co., Dayton, O.
Economy—Economy Pumping Machinery Co., Chicago, Ill.
Elton—Elton Company, Allentown, Pa.
Fairbanks, Morse & Co., Chicago. "Fairbanks-Morse."
Ft. Wayne Engineering & Mfg. Co., Ft. Wayne, Ind. "Paul."
Goulds Pumps, Inc., Seneca Falls, N. Y. "Goulds."
Gray Motor Co., Detroit, Mich.
Harris Air Pump Co., Indianapolis, Ind.
Hill Pump & Turbine Works, Anderson, Ind.
Hoosier—Flint & Walling Mfg. Co., Kendallville, Ind.
Humphryes Mfg. Co., Mansfield, O.
Imperial—Ingersoll-Rand Co., New York, N. Y.
Indiana Economy—Indiana Air Pump Co., Indianapolis, Ind.
International Filter Co., Chicago, Ill.
Kellog Mfg. Co., Rochester, N. Y.
Kewanee Private Utilities Co., Kewanee, Ill. "Kewanee."
Latta-Martin Pump Co., Hickory, N. C. "Universal."
Leader—Leader Iron Works, Decatur, Ill.
Luitwieler Pumping Engine Co., Rochester, N. Y.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Milwaukee—Milwaukee Air Power Pump Co., Milwaukee, Wis.
Moloch Company, Kaukauna, Wis.
Monarch—The Monarch Engineering Co., Dayton, O.
Murdock Pump Co., Indianapolis, Ind.
Myers—F. E. Myers & Bro. Co., Ashland, O.
National—National Utilities Corp., Milwaukee, Wis.
Niles Machine Co., Lebanon, N. H.
Peters Pump Co., Kewanee, Ill.
Red Jacket Mfg. Co., Davenport, Ia.
Roberts, Geo. J., Co., Dayton, O. "Roberts."
Roberts-Hamilton Co., Minneapolis, Minn. "Rohaco."
Roper, Geo. D., Corp., Rockford, Ill. "Trahern."
Simplex—Baltimore Cooperage Co., Baltimore, Md.
Standard Pump & Engine Co., Akron, O. "Standard."
Uniflow Manufacturing Co., Erie, Penna.
V. & K.—The Vaile & Kimes Co., Dayton, Ohio.
Westco—Western Pump Co., Davenport, Ia.
Westco—Plant Engineering & Equipment Co., Brooklyn, N. Y.

TABLES, BRAZING.

Bellevue—Bellevue Industrial Furnace Co., Detroit, Mich.
Chicago Flexible Shaft Co., Chicago, Ill.

Improved Appliance Co., Brooklyn, N. Y.
Johnson Gas Appliance Co., Cedar Rapids, Ia. "Johnson."
Simplex Tool & Supply Co., Boston, Mass. "Simplex."

TABLES, CIRCULAR, FOR MACHINE TOOLS.

Cochrane-Bly Company, Rochester, N. Y.

TABLES, DISPLAY, REVOLVING.

Smith, Winfield, H., Springville, Erie Co., N. Y.

TABLES, FOOT POWER.

Goodell-Pratt Co., Greenfield, Mass.

TABLES, SAND BLAST.

Hoevel Mfg. Corp., Jersey City, N. J. "Hoevel."
Buckeye—The MacLeod Co., Cincinnati, O.
Stodder, W. F., Syracuse, N. Y. "Three-in-One."

TABLES, SAW.

(See also "Woodworkers, Variety.")
American Saw Mill Machinery Co., Hackettstown, N. J.
Armstrong Mfg. Co., Portland, Ore.
B. T. & B.—Machinery Company of America, Big Rapids, Mich.
Badger State Machine Works, Beloit, Wis. "Badger State."
Beach—Beach Mfg. Co., Montrose, Pa.
Beloit—Hendley & Whittemore Co., Beloit, Wis.
Boice Junior—W. & J. Boice, Toledo, O. (small).
Boynton & Plummer, Inc., Chester Depot, Vt.
Christiansen, C., Chicago, Ill. (swing cut off).
Crescent—The Crescent Machine Co., Leetonia, O.
Dodd—Alexander Dodds Co., Grand Rapids, Mich.
Famous—Sidney Machine Tool Co., The, Sidney, O.
Grabo, E. O., Machine Works, Inc., New York, N. Y.
Grammes, L. F., & Sons, Allentown, Pa.
H. & A.—Heston & Anderson, Fairfield, Iowa (portable).
Hildreth Bros.—Lewis R. Ripley, Fitchburg, Mass.
Hooker Mfg. Corp., St. Johnsbury, Vt.
Ideal—The Neil & Smith Electric Tool Co., Cincinnati, O.
Kidder—Hobbs Mfg. Co., Worcester, Mass.
Lindahl, Henry, Machine Co., Chicago, Ill.
Racine Tool & Machine Co., Racine, Wis.
Root Co., B. M., York, Pa. (portable).
Safty Saw—D. W. Onan & Sons, Minneapolis, Minn.
Samco—San Antonio Machine & Supply Co., San Antonio, Tex.
Seneca Falls Mfg. Co., Seneca Falls, N. Y
Sinker-Davis Co., Indianapolis, Ind. "Hoosier."
N. Y.
Stewart—S. A. Stewart & Co., Waltham, Mass.
Tannewitz Works, Grand Rapids, Mich. (floor and bench).
Tidey, Marcus B., Newark, N. J.
Towsley—John T. Towsley Mfg. Co., Cincinnati, O.
Union—Gallmeyer & Livingston Co., Grand Rapids, Mich. (Portable.)
United States Machine Co., Williamsport, Pa.
Wallace—J. D. Wallace & Co., Chicago, Ill.
Wardwell Mfg. Co., The, Cleveland, O.
Whitney—Baxter D. Whitney & Son, Inc., Winchendon, Mass.
Wood Workers' Tool Works, Chicago, Ill.

TABLES, SCRAPING.

New Britain Machine Co., The, New Britain, Conn.

TABLES, SPACING, FOR PUNCHES AND SHEARS.

Hilles & Jones—Consolidated Machine Tool Corp. of America, New York, N. Y.
Thomas Spacing Machine Co., Pittsburgh, Pa.

TABLES, STEAM.

Nason Mfg. Co., New York, N. Y.

TABLES, STEEL.

Durand Steel Locker Co., Chicago, Ill.
Lymetco—Lyon Metallic Mfg. Co., Aurora, Ill.
Ot-Steel—Angle Steel Stool Co., Plainwell, Mich.
Uhl Steel—The Toledo Metal Furniture Co., Toledo, Ohio.

TABLES, WELDING.

Ekern-Turk Mfg. Co., Inc., Pipestone, Minn.
Meco—Modern Engineering Co., Saint Louis, Mo.

TABLES, WORK, FACTORY.

New Britain Machine Co., New Britain, Conn.

TACHOMETERS.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Amthor Testing Instrument Co., Brooklyn, N. Y.
Bailey Meter Company, Cleveland, Ohio.
Bristol's—The Bristol Co., Waterbury, Conn. (recording).
Coats—Coats Machine Tool Co., Inc., New York, N. Y. (Hand.)
Elgin National Watch Co., Chicago, Ill.
Foxboro Co., Inc., Foxboro, Mass.
Frahm, Jagabi—James G. Biddle, Philadelphia, Pa.
Jones—Consolidated Instrument Co. of America, Inc., New York, N. Y.
O-Z—O. Zernickow Co., New York, N. Y.
Precision Thermometer & Instrument Co., Philadelphia, Pa.
Tetco—The Electric Tachometer Corp., Philadelphia, Pa.
Veeder Mfg. Co., Hartford, Conn.

TACHOSCOPES.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
O. Z.—O. Zernickow Co., New York. (Speed indicator and watch combined.)

TACKS, BRASS, COPPER AND STEEL.

American Steel & Wire Co., Chicago, Ill.
Atlas Tack Corp., Fairhaven, Mass. (wire and cut, all metal).
Bernz, Otto, Newark, N. J.
Clendenin Bros., Inc., Baltimore, Md.
Eagle Brand—Taunton-New Bedford Copper Co., Taunton, Mass.
Grammes, L. F., & Sons, Allentown, Pa.
Hillwood Mfg. Co., The, Euclid, O.
Interstate Iron & Steel Co., Chicago, Ill.
Milwaukee Tack Co., Milwaukee, Wis.
Rome Brass & Copper Co., Rome, N. Y.
Star—U. T. Hungerford Brass & Copper Co., New York, N. Y.
Tower Mfg. Co., Madison, Ind.

TAGS, BIN, FOR MILL SUPPLY HOUSES.

Haddon Bin Label Co., Haddon Heights, N. J.

TAMPERS, ASPHALT, EARTH, ETC.

American Scale Co., Kansas City, Mo.
Barber Asphalt Co., The, Philadelphia, Pa.
Cleveland Rock Drill Co., The, Cleveland, Ohio.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Duffy Manufacturing Co., Chicago, Ill.
Duff Mfg. Co., Pittsburgh, Pa. "Dunn."
Glenn Mfg. Co., St. Charles, Ill.
Hubbard & Co., Pittsburgh, Pa.
Indiana Foundry Co., Indiana, Pa.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Modern Iron Works, Quincy, Ill.
S. & H.—Holtum Mfg. Co., Freeport, Ill.
Stearns, E. C., & Co., Syracuse, N. Y.
Swett, A. L., Iron Works, Medina, N. Y.

TAMPERS, POWER.

Harnischfeger Corp., The, Milwaukee, Wis.

TANKS, AIR OR GAS.

Atsco—Air-Tight Steel Tank Co., Pittsburgh, Pa.
Aurora—Steel Tank & Products Corp., Chicago, Ill.
Biggs Boiler Works Co., The, East Akron, O.
Bros, Wm., Boiler & Mfg. Co., Minneapolis, Minn.
Brunner—Brunner Mfg. Co., Utica, N. Y.
Coatesville Boiler Works, Coatesville, Penna.
Electric Weld—John Wood Mfg. Co., Conshohocken, Pa.
Joliet—Amco Sales Corp., Chicago, Ill.
Faultless—American Scale Co., Kansas City, Mo.
Frost Mfg. Co., The, Galesburg, Ill.
Hamburg Boiler Works, Hamburg, Pa.
Kantainers—Seamless Steel Products Co., Milwaukee, Wis.
Koven, L. O., & Bro., Jersey City, N. J.
Lancaster Iron Works, Inc., Lancaster, Pa.
Leader Iron Works, Decatur, Ill.
Murphy & Walsh, Pekin, Ill.
New York Central Iron Works Co., Hagerstown, Md.
Petty & Co., Inc., J. K., Philadelphia, Pa.
Riverside Boiler Works, Inc., Cambridge, Mass.
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.
Star—Detroit Range Boiler & Steel Barrel Co., Detroit, Mich.
Struthers-Wells Co., Warren, Pa.
United States Air Compressor Co., Cleveland, O.
Wilks—S. Wilks Mfg. Co., Chicago, Ill.

TANKS, BLOW-OFF.

Aurora—Steel Tank & Products Corp., Chicago, Ill.
Biggs Boiler Works Co., The East Akron, O.
Columbiana Boiler Co., Columbiana, Ohio.
Elkhart Iron Works, Elkhart, Ind.
Frost Mfg. Co., The, Galesburg, Ill.
Koven, L. O., & Bro., Jersey City, N. J.
Lancaster Iron Works, Inc., Lancaster, Pa.
New York Central Iron Works Co., Hagerstown, Md.
Struthers-Wells Co., Warren, Pa.
Walworth Company, Boston, Mass.

TANKS, BRAZING.

Air-Tight Steel Tank Co., Pittsburgh, Pa.

TANKS, CLEANING SOLUTION.

Ohio Heater Co., The, Columbus, O.

TANKS, CONCRETE.

Columbiana Boiler Co., The, Columbiana, Ohio.
Indiana Foundry Co., Indiana, Pa.

TANKS, CONDENSER.

Biggs Boiler Works Co., East Akron, O.
Columbiana Boiler Co., The, Columbiana, Ohio.
Lancaster Iron Works, Inc., Lancaster, Pa.
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.
Struthers-Wells Co., Warren, Pa.

TANKS, EXPANSION.

Air-Tight Steel Tank Co., Pittsburgh, Pa.
Biggs Boiler Works Co., East Akron, O.
Capitol Triton—U. S. Radiator Corp, Detroit, Mich.
Carroll, P., & Son, Philadelphia, Pa. "Carroll."
Cecave—Pittsburgh Range Boiler Co., Pittsburgh, Pa.
Columbiana Boiler Co., Columbiana, Ohio.
Hackney—Pressed Steel Tank Co., Milwaukee, Wis.
Hi-trade—Riverside Boiler Works, Inc., Cambridge, **Mass.**
International Boiler Works Co., East Stroudsburg, Pa.
Koven & Bro., L. O., Jersey City, N. J.
Lancaster Iron Works, Inc., Lancaster, Pa.
Lawler's Automatic—Lawler Waterfeed & Damper Co., Mt. Vernon, N. Y.
Morrison Bros., Dubuque, Ia.
New York Central Iron Works Co., Hagerstown, Md.
Oil City Boiler Works, Oil City, Pa.
Pennsylvania Range Boiler Co., Philadelphia, Pa.
Petty, J. K., & Co., Inc., Philadelphia, Pa.
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.
Sistersville Boiler Works, Sistersville, W. Va.
Sodeman Heat & Power Co., St. Louis, Mo.
Star—Detroit Range Boiler & Steel Tank Co., Detroit, Mich.
Stover—Stover Steel Tank Co., Freeport, Ill.
Struthers-Wells Co., Warren, Pa.
Thompson Iron Works, The, Philadelphia, Pa.
Trageser, John, Steam Copper Works, New York, N. Y.
Union Radiator Co., Johnstown, Pa.
Wilks—S. Wilks Mfg. Co., Chicago, Ill.
Walworth Company, Boston, Mass.
Wolff Mfg. Corp., Chicago, Ill.
Wood, John, Mfg. Co., Conshohocken, Pa. "Electric Weld."

TANKS, FILTER.

Aurora—Steel Tank & Products Corp., Chicago, Ill.
Biggs Iron Works Co., The, East Akron, O.
Lancaster Iron Works, Inc., Lancaster, Pa.
New York Central Iron Works Co., Hagerstown, Md.
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.
Steel Tank & Products Corp., Chicago, Ill.
Struthers-Wells Co., Warren, Pa.

TANKS, FIRE BUCKET.

Acme—Wilson & Bennett Mfg. Co., Chicago, Ill.
Iron Horse—Rochester Can Co., Rochester, N. Y.
Jiffy—Jiffy Fire Hose Rack Co., New York, N. Y.
Peerless—Miller-Peerless Mfg. Co., Chicago, Ill.
Protection—Geo. W. Diener Mfg. Co., Chicago, Ill.
Safety—Safety Fire Extinguisher Co., New York, N. Y.
Simmons, John, Co., New York, N. Y.

TANKS, GALVANIZING.

Biggs Boiler Works Co., East Akron, O.
Koven, L. O., & Bros., Jersey City, N. J.
Lancaster Iron Works, Inc., Lancaster, Pa.
Ruemmelli-Dawley Mfg. Co., The, St. Louis, Mo.
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.

TANKS, GASOLINE.

(See, also, "Systems, Gasoline Storage.")

Acme—Wilson & Bennett Mfg. Co., Chicago, Ill.
American Oil Pump & Tank Co., Cincinnati, Ohio.
Atsco—Air-Tight Steel Tank Co., Pittsburg, Pa.
Aurora—Steel Tank & Products Corp., Chicago, Ill.
Biggs Boiler Works Co., The, East Akron, O.
Bliss, E. W., Co., Brooklyn, N. Y.
Codd, E. J., Co., Baltimore, Md.
Bowser Co., S. F., Fort Wayne, Ind.
Caldwell, W. E., Co., Louisville, Ky.
Columbiana Boiler Co., Columbiana, Ohio.
Columbian Steel Tank Co., Kansas City, Mo.
Davis & Farnum Mfg. Co., Waltham, Mass.
Eastern—W. A. Case & Son Mfg. Co., Buffalo, N. Y.
Electric Weld—John Wood Mfg. Co., Conshohocken, Pa.
Gilbert & Barker—Gilbert & Barker Mfg. Co., Springfield, Mass.
Hamburg Boiler Wks., Hamburg, Pa.
Improved Appliance Co., Brooklyn, N. Y.
International Boiler Works Co., East Stroudsburg, Pa.
Joliet—Amco Sales Corp., Chicago, Ill.
Kerrihard Co., The, Red Oak, Iowa.
Keystone Boiler & Foundry Co., Landisville, Pa.
Koven & Bro., L. O., Jersey City, N. J.
Littleford Bros., Cincinnati, O.
Milwaukee Tank Works, Inc., Milwaukee, Wis.
Mullins Body Corp., Stamping Dept. A, Salem, O.
Munroe, R., & Sons Mfg. Corp., Pittsburgh, Pa.
Murphy & Walsh, Pekin, Ill.
New York Central Iron Works Co., Hagerstown, Md.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Petty, J. K., & Co., Inc., Philadelphia, Pa.
Protection—Geo. W. Diener Mfg. Co., Chicago, Ill.
Riverside Boiler Works, Cambridge, Mass.
Roper, Geo. D., Corp., Rockford, Ill. "Trahern."
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.
Sistersville Boiler Works, Sistersville, W. Va.
Struthers-Wells Co., Warren, Pa.
Trageser, John, Steam Copper Works, New York, N. Y.
Wayne—Wayne Tank & Pump Co., Fort Wayne, Ind.
Weldex Mfg. Co., Richmond, Ind.
Welded Steel Barrel Corp., Detroit, Mich.
Western Oil Pump & Tank Co., St. Louis, Mo.

TANKS, HOT WATER STORAGE.

Air-Tight Steel Tank Co., Pittsburg, Pa.
Always-Klean—Leader Iron Works, Decatur, Ill.
Badger & Sons Co., E. B., Boston, Mass. (copper).
Biggs Boiler Works Co., The, East Akron, O.
Bros—Wm. Bros Boiler & Mfg. Co., Minneapolis, Minn.
Caldwell Co., W. E., Louisville, Ky.
Columbiana Boiler Co., The, Columbiana, Ohio.
Dahlquist Mfg. Co., South Boston, Mass. (copper).
Dodge Mfg. Corp., Mishawaka, Ind.
Electric Weld—John Wood Mfg. Co., Conshohocken, Pa.
Gerstein & Cooper Co., So. Boston, Mass. (copper). "Gerstein & Cooper."
Hamburg Boiler Works, Hamburg, Pa.
International Boiler Works Co., East Stroudsburg, Pa.
Joliet—Amco Sales Corp., Chicago, Ill.
Kewanee Boiler Co., Kewanee, Ill.
Koven & Bro., L. O., Jersey City, N. J.
Lancaster Iron Works, Inc., Lancaster, Pa.
Morrison Bros., Dubuque, Iowa.
Munroe, R., & Sons Mfg. Corp., Pittsburgh, Pa.
Murphy & Walsh, Pekin, Ill.
National Supply Co., Chicago, Ill.
National—National Steel Tank & Mfg. Co., Bradford, Ill.
New York Central Iron Works Co., Hagerstown, Md.
Oil City Boiler Works, Oil City, Pa.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Pennsylvania Range Boiler Co., Philadelphia, Pa.
Petty, J. K., & Co., Inc., Philadelphia, Pa.
Reco—Richmond Engineering Co., Richmond, Va.
Roper, Geo. D., Corp., Rockford, Ill. "Trahern."
Sanitary Appliance Co., Inc., Houston, Tex.
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.
Sims—The Sims Co., Erie, Pa.
Sinker-Davis Co., The, Indianapolis, Ind. "Hoosier."
Steel Tank & Products Corp., Chicago, Ill. "Aurora."
Struthers-Wells Co., Warren, Pa.
Trageser, John, Steam Copper Works, New York, N. Y.
Wilks—S. Wilks Mfg. Co., Chicago, Ill.

TANKS, HYDRO-PNEUMATIC.

(See also, "Systems, Water Supply.")

Aurora—Steel Tank & Products Corp., Chicago, Ill.
Biggs Boiler Works Co., The, East Akron, O.
Bros—Wm. Bros Boiler & Mfg. Co., Minneapolis, Minn.
Coatesville Boiler Works, Coatesville, Penna.
Davis & Farnum Mfg. Co., Waltham, Mass.
Deming Co., The, Salem, O.
Electric Weld—John Wood Mfg. Co., Conshohocken, Pa.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Hoosier—Flint & Walling Mfg. Co., Kendallville, Ind.
Indian Brand—Kewanee Private Utilities Co., Kewanee, Ill.
Joliet—Amco Sales Corp., Chicago, Ill.
Lancaster Iron Works, Inc., Lancaster, Pa.
Leader Iron Works, Decatur, Ill.
Myers, F. E., & Bro. Co., The, Ashland, O.
National Steel Tank & Mfg. Co., Bradford, Ill.
New York Central Iron Works Co., Hagerstown, Md.
Novelty Steam Boiler Works Co., The, Baltimore, Md. "Arrow."
Quality—The Heil Co., Milwaukee, Wis.
Reco—Richmond Engineering Co., Richmond, Va.
Reliance—Milwaukee Reliance Boiler Works, Milwaukee, Wis.

Riverside Boiler Works, Inc., Cambridge, Mass.
Roper, Geo. D., Corp., Rockford, Ill. "Trahern."
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.
Star—Flint & Walling Mfg. Co., Kendallsville, Ind.
Struthers-Wells Co., Warren, Pa.
Toledo Metal Mfg. Co., The, Toledo, O.
Trageser, John, Steam Copper Works, New York, N. Y.
Wilks—S. Wilks Mfg. Co., Chicago, Ill.
Wood Mfg. Co., John, Conshohocken, Pa.

TANKS, JACKETED.

Biggs Boiler Works Co., The, East Akron, O.
Lancaster Iron Works, Inc., Lancaster, Pa.
New York Central Iron Works Co., Hagerstown, Md.

TANKS AND CABINETS, OIL STORAGE AND FILLING STATIONS.

(See also "Cans, Oil, Storing.")

American—The American Oil Pump & Tank Co., Cincinnati, O.
American Pump & Tank Co., New York. "American."
Atsco—Air Tight Steel Tank Co., Pittsburg, Pa.
Aurora—Steel Tank & Products Corp., Chicago, Ill.
Ben-Hur—Johnson Acetylene Gas Co., Crawfordsville, Ind.
Biggs Boiler Works Co., The, East Akron, O.
Billow—National Supply Co., Chicago, Ill.
Bowser Co., S. F., Fort Wayne, Ind.
Bros, Wm., Boiler & Mfg. Co., Minneapolis, Minn
Bushnell—Bushnell Pump Co., Bushnell, Ill.
Columbian Steel Tank Co., Kansas City, Mo.
Columbiana Boiler Co., Columbiana, Ohio.
Davis & Farnum Mfg. Co., Waltham, Mass.
Diener, Geo. W., Mfg. Co., The, Chicago, Ill.
Emerson-Scheuring Tank Co., Indianapolis, Ind.
Gilbert & Barker—Gilbert & Barker Mfg. Co., Springfield, Mass.
Graver Corporation, East Chicago, Ind.
Hamburg Boiler Works, Hamburg, Pa.
Hamler Boiler & Tank Co., Chicago, Ill.
Lancaster Iron Works, Inc., Lancaster, Pa.
Leader Iron Works, Decatur, Ill.
Milwaukee Tank Works, Inc., Milwaukee, Wis.
Morrison Bros., Dubuque, Ia.
Nugent, Wm., & Co., Chicago, Ill.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Quality—The Heil Co., Milwaukee, Wis.
Richardson-Phenix Co., Milwaukee, Wis.
Riter-Conley Co., Pittsburg, Pa.
Sanitary Appliance Co., Inc., Houston, Tex.
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.
Schofield, J. S., & Sons, Co., Macon, Ga.
Sexton Can Co., Boston, Mass.
Struthers-Wells Co., Warren, Pa.
Turner Oil Filter Co., Niles, Mich.
Wall Mfg. & Supply Co., The P., Pittsburgh, Pa.
Wayne Tank & Pump Co., Fort Wayne, Ind.
Western Oil Pump & Tank Co., St. Louis, Mo. (Trade names—Western, Mogul, Big Gusher.)
White Star—Pittsburgh Gage & Supply Co., Pittsburgh Pa.
Wilson & Bennett Mfg. Co., Chicago, Ill.

TANKS, PAINT SPRAY.

Simplex—Simplex Spray Equipment Co., Chicago, Ill.

TANKS, RECEIVER.

Air-Tight Steel Tank Co., Pittsburgh, Pa.
Aurora—Steel Tank & Products Corp., Chicago, Ill.
Biggs Boiler Works Co., The, East Akron, O.
Dunham—C. A. Dunham Co., Inc., Chicago, Ill.
Lancaster Iron Works, Inc., Lancaster, Pa.
Murphy & Walsh, Pekin, Ill.
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.
Sims—The Sims Co., Erie, Pa.
Struthers-Wells Co., Warren, Pa.

TANKS, SAND BLAST.

Hoevel Mfg. Corp., Jersey City, N. J.
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.

TANKS, SEPTIC, FOR SEWAGE DISPOSAL.

American Sanitary Products Co., Inc., Stamford, Conn.
Anchor Stone Co., Minneapolis, Minn.
Andrews Heating Co., Minneapolis, Minn.
Aten Sewage Disposal Co., New York N. Y.
Bass Foundry & Machine Co., Ft. Wayne, Ind.
Biggs Boiler Works Co., The, East Akron, O.
Bros, Wm., Boiler & Mfg. Co., Minneapolis, Minn.
Cement Products Co., Wilmington, N. C.
Chemical Toilet Corp., Syracuse, N. Y.
Dickey, W. S., Clay Mfg. Co., Kansas City, Mo.
Electric Weld—John Wood Mfg. Co., Conshohocken, Pa.
Graver Corp., East Chicago, Ind.
International Boiler Works Co., East Stroudsburg, Pa.
Kaustine Co., Inc., Buffalo, N. Y. (Trade names—Hygeo, Super-Septic.)
Kewanee Private Utilities Co., Kewanee, Ill.
Koven, L. O., & Bro., Jersey City, N. J.
Leader Iron Works, Decatur, Ill.
Macomb Sewer Pipe Works, Macomb, Ill.
Miller & Adams Patents—Pacific Flush Tank Co., Chicago, Ill.
Morrison Bros., Dubuque, Iowa.
Pacific Flush Tank Co., Chicago, Ill.
Pease—P. L. Pease & Co., Inc., Lancaster, N. Y.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Perfection—United Cement Products Co., Indianapolis, Ind.
Reco—Richmond Engineering Co., Richmond, Va.
"Rural"—Rural Septic Systems Co., Indianapolis, Ind.
San-Equip—Chemical Toilet Corporation, Syracuse, N. Y.
Sanitary—The Sanitary Engineering Co., Pittsburgh, Pa.
Sanitary Appliance Co., Inc., Houston, Tex.
Sep-Tank System—Stroudsburg Septic Tank Co., Stroudsburg, Pa.
Standard-Elsmere Granite Co., Chicago, Ill.
Southern Sewer Pipe Works, Birmingham, Ala.
Uniflow Manufacturing Co., Erie, Pa.
United Cement Products Co., Indianapolis, Ind.
Universal Septic Tank Corp., Beaver Falls, Pa.
Wakeman, D. G., Brooklyn, Ind.
Walsh & Weidner Boiler Co., Chattanooga, Tenn.
Wolverine—Dail Steel Products Co., Lansing, Mich.

TANKS, STORAGE.

Acme—Wilson & Bennett Mfg. Co., Chicago, Ill.
Atsco—Air-Tight Steel Tank Co., Pittsburgh, Pa.
Beckley Perforating Co., Garwood, N. J.
Biggs Boiler Works Co., The, East Akron, O.
Brownell Co., The, Dayton, O.
Butler—Butler Mfg. Co., Kansas City, Mo.
Caldwell, W. E., Co., Louisville, Ky.
Coatesville Boiler Works, Coatesville, Penna.
Codd Co., E. J., Baltimore, Md.
Columbiana Boiler Co., The, Columbiana, Ohio.
Columbian Steel Tank Co., Kansas City, Mo.
Conveyors Corp. of America, Chicago, Ill.
Dillon, D. M., Steam Boiler Works, Fitchburg, Mass.
Gilbert & Barker Mfg. Co., Springfield, Mass.
Kerrihard Co., The, Red Oak, Iowa.
Keystone Boiler & Foundry Co., Landisville, Pa.
Koven, L. O., & Bro., Jersey City, N. J.
Lancaster Iron Works, Inc., Lancaster, Pa.
New York Central Iron Works Co., Hagerstown, Md.
Novelty Steam Boiler Works Co., The, Baltimore, Md. "Arrow."
Peerless—Miller-Peerless Mfg. Co., Chicago, Ill.
Petroleum Iron Works Co., Sharon, Pa.
Prospect Boiler Co., New Brunswick, N. J.
Quality—The Heil Co., Milwaukee, Wis.
Reliance—Milwaukee Reliance Boiler Works, Milwaukee, Wis.
Riverside Boiler Works, Inc., Cambridge, Mass.
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.
Star—Flint & Walling Mfg. Co., Kendallville, Ind.
Steel Tank & Products Corp., Chicago, Ill.
Struther-Wells Co., Warren, Pa.
Wayne Tank & Pump Co., Ft. Wayne, Ind.
Welded Steel Barrel Corp., Detroit, Mich.
Zelnicker, Walter A., Supply Co., St. Louis, Mo.

TANKS, SUMP.

Elkhart Iron Works, Elkhart, Ind.

TANKS, TEMPERING.

Biggs Boiler Works Co., East Akron, O.
Garwood Bronze & Iron Works, Garwood, N. J.
Koven, L. O., & Bro., Jersey City, N. J.

TANKS, URINAL FLUSH.

American Foundry & Mfg. Co., St. Louis, Mo.
Atlas—Knott Mfg. Co., Tell City, Ind.
B.O.T. Mfg. Co., Trenton, N. J.
B. R. E. Mfg. Co., Boston, Mass.
Becker Mfg., Marietta, O.
Berglas, M. P., Mfg. Co., Brooklyn, N. Y.
Bowers Pottery Co., Mannington, W. Va.
Buffalo Wash Tray Works, Buffalo, N. Y.
Bull Dog—Wm. Heap & Sons, Grand Haven, Mich.
Camden Pottery Co., Camden, N. J.
Chicago Pottery Co., Chicago, Ill.
Columbia Sanitary Mfg. Co., Louisville, Ky.
Columbus Brass Co., Columbus, O.
Coyne & Delany Co., Brooklyn, N. Y.
Crane Co., Chicago, Ill.
Eljer Co., Ford City, Pa.
Fords Porcelain Works, Perth Amboy, N. J.
I.X.L. Pump & Mfg. Co., Inc., Philadelphia, Pa.
Kalamazoo Sanitary Mfg. Co., Kalamazoo, Mich.
Kohler Co., Kohler, Wis.
Kokomo Sanitary Mfg. Co., Kokomo, Ind.
Maddock's, Thos., Sons Co., Trenton, N. J.

McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Mott Iron Works, J. L., Trenton, N. J.
Peerless Selling Co., Evansville, Ind.
Perfect Tank & Seat Co., Syracuse, N. Y.
Riverside Foundry & Galvanizing Co., Kalamazoo, Mich.
Sesco—Sanitary Earthenware Specialty Co., Trenton, N. J.
Sherwood Brass Works, Detroit, Mich.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Tepeco—Trenton Potteries Co., Trenton, N. J.
Trageser, John, Steam Copper Works, New York, N. Y.
Van-ArCo—Van Arnam Mfg. Co., Ft. Wayne, Ind.
Watrous—Federal-Huber Co., Chicago, Ill.
Wheeling Sanitary Mfg. Co., Wheeling, W. Va.

TANKS, VACUUM.

Beckley Perforating Co., Garwood, N. J.
Biggs Boiler Works Co., The, East Akron, O.
Hynes & Cox Electric Corp., Albany, N. Y.
Lancaster Iron Works, Inc., Lancaster, Pa.
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.
Struthers-Wells Co., Warren, Pa.

TANKS, WAGON AND TRUCK, FOR OIL AND WATER.

Acme—Wilson & Bennett Mfg. Co., Chicago, Ill.
Bros. Wm., Boiler & Mfg. Co., Minneapolis, Minn.
Bushnell—Bushnell Pump Co., Bushnell, Ill.
Codd Co., E. J., Baltimore, Md.
Columbian Steel Tank Co., Kansas City, Mo.
Electric Weld—John Wood Mfg. Co., Conshohocken, Pa.
Joliet—Amco Sales Corp., Chicago, Ill.
Kerrihard Co., The, Red Oak, Iowa.
Lancaster Iron Works, Inc., Lancaster, Pa.
Littleford Bros., Cincinnati, O.
Morrison Bros., Dubuque, Ia.
Pennsylvania Furnace & Iron Co., Warren, Pa.
Powell, Wm., Co., The, Cincinnati, O.
Quality—The Heil Co., Milwaukee, Wis.
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.
Welded Steel Barrel Corp., Detroit, Mich.
Western Pipe & Steel Co., Los Angeles, Cal.

TANKS, WATER CLOSET, ALUMINUM, LOW AND HIGH.

Maxco—Sherwood Brass Works, Detroit, Mich.

TANKS, WATER CLOSET, AUTOMATIC FLUSH.

American Foundry & Mfg. Co., St. Louis, Mo.
Boston—Joseph H. Young Co., Boston, Mass.
C. & D.—Coyne & Delany Co., Brooklyn, N. Y.
Chicago Granitine Mfg. Co., Chicago, Ill. (Trade names—Ajax, Princess.)
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
The Hogan Mfg. Co., Hartford, Conn.
I.X.L. Pump & Mfg. Co., Inc., Philadelphia, Pa.
Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Kalamazoo Sanitary Mfg. Co., Kalamazoo, Mich.
Knott Mfg. Co., Ft. Wayne, Ind.
Koven, L. O., & Bros., Jersey City, N. J.
Maxco—Sherwood Brass Works, Detroit, Mich.
Riverside Boiler Works, Inc., Cambridge, Mass.
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.
Sesco—Sanitary Earthenware Specialty Co., Trenton, N. J.
Shwab Bros. Co., New York, N. Y.
Standard Tank & Seat Co., Camden, N. J.
Union Metal Works, Chelsea, Mass.
Van Arnam Mfg. Co., Fort Wayne, Ind. (Trade names—VanArCo, Van Arnam).
Walworth Company, Boston, Mass.
Watrous—Federal-Huber Co., Chicago, Ill.

TANKS, WATER CLOSET, COMPOSITION.

Case, W. A., & Son, Mfg. Co., Buffalo, N. Y.
Chino—Beneke Mfg. Co., Chicago, Ill.
Coyne & Delany Co., Brooklyn, N. Y.
Germain Bros., Co., Pittsburgh, Pa.
Hayes Products Co., Grand Rapids, Mich.
Heap, William & Sons, Grand Haven, Mich. "Bulldog," "Star."

TANKS, WATER CLOSET, IRON, GALVANIZED.

American Foundry & Mfg. Co., St. Louis, Mo.
Case, W. A., & Son Mfg. Co., Buffalo, N. Y.
Electric Weld—John Wood Mfg. Co., Conshohocken, Pa.
I. X. L. Pump & Mfg. Co., Philadelphia, Pa.
Koven, L. O., & Bro., New York, N. Y.
Maxco—Sherwood Brass Works, Detroit, Mich.
Riverside Foundry & Galvanizing Co., Kalamazoo, Mich.
Sanitary Company of America, Linfield, Pa.
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.
Star—Detroit Range Boiler & Steel Barrel Co., Detroit, Mich.
Trageser, John, Steam Copper Works, New York, N. Y.
Wilks, S., Mfg. Co., Chicago, Ill.

TANKS, WATER CLOSET, PORCELAIN ENAMELED.

Acme—The Stuart & Peterson Co., Burlington, N. J.
Columbia Sanitary Mfg. Co., Louisville, Ky.
Coyne & Delany Co., Brooklyn, N. Y.
Crane Co., Chicago, Ill.
Federal-Huber Co., Chicago, Ill.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Iron City Sanitary Mfg. Co., Pittsburgh, Pa.
I. X. L. Pump & Mfg. Co., Philadelphia, Pa.
Jones Hollow Ware Co., Baltimore, Md.
Kohler Co., Kohler, Wis.
National Sanitary Company, The, Salem, O.
Rundle Mfg. Co., Milwaukee, Wis.
Southern Beauty—Crane Enamelware Co., Chattanooga, Tenn.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Union Sanitary Mfg. Co., Noblesville, Ind.
United States Sanitary Mfg. Co., Pittsburgh, Pa.
Walworth Company, Boston, Mass.
Weiskittel, A., & Son, Baltimore, Md.
White Beauty—The Humphryes Mfg. Co., Mansfield, Ohio.
Wolff Mfg. Corp., Chicago, Ill.

TANKS, WATER CLOSET, PORCELAIN AND VITREOUS CHINA.

Abingdon Sanitary Mfg. Co., The, Abingdon, Ill.
Apollo—Potomac Pottery Co., Keyser, W. Va.
B. O. T. Mfg. Co., Trenton, N. J.
Capoco—Camden Pottery Co., Camden, N. J.
Case, W. A., & Son Mfg. Co., Buffalo, N. Y.
Chicago Pottery Co., Chicago, Ill.
Crane Co., Chicago, Ill.
Eljer Co., Ford City, Pa. (Trade names—Delta, Holland, Marion, Serpentine, Terrace, Altair, Shasta.)
Fords Porcelain Works, Perth Amboy, N. J.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Hayes Products Co., Grand Haven, Mich.
Hogan Mfg. Co., The, Hartford, Conn. (Trade names—Charter Oak, Harmony, Hogan, Royal.)
Kalamazoo Sanitary Mfg. Co., Kalamazoo, Mich.
Kokomo Sanitary Pottery Co., Kokomo, Ind.
Lambertville Pottery Co., Lambertville, N. J.
Maddock, John, & Sons, Trenton, N. J.
Maddock's, Thos., Sons Co., Trenton, N. J.
Mott, J. L., Iron Works, Trenton, N. J.
Peerless Selling Co., Evansville, Ind.
Penn Pottery Co., Philadelphia, Pa.
Resolute Pottery Co., Trenton, N. J. (Trade names—Flush All, Popular.)
Sesco—The Sanitary Earthenware Specialty Co., Trenton, N. J.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Trenton Potteries Co., Trenton, N. J. (Trade names—Impervio, Two-Fired.)
Universal Sanitary Mfg. Co., New Castle, Pa.
Unicast—Wolff Mfg. Corp., Chicago, Ill.
Vitro—W. A. Case & Son Mfg. Co., Buffalo, N. Y.
Walworth Company, Boston, Mass.
Wheeling Sanitary Mfg. Co., Wheeling, W. Va.

TANKS, WATER CLOSET, STONE.

Alberene Stone Co., New York, N. Y.

TANKS, WATER CLOSET, WOOD.

Abingdon Seat & Tank Mfg. Co., Abingdon, Ill.
Atlas—Knott Mfg. Co., Tell City, Ind.
Badger Line—Plumbers Woodwork Co., Algoma, Wis.
Becker Mfg. Co., The, Marietta, O.
Berglas, M. P., Mfg. Co., Brooklyn, N. Y.
B. O. T. Mfg. Co., Trenton, N. J.
Boston Seat & Tank Co., Detroit, Mich.
Breco—B. R. E. Mfg. Co., Boston, Mass.
Chicago Pottery Co., Chicago, Ill.
Church, C. F., Mfg. Co., Holyoke, Mass.
Coyne & Delany Co., Brooklyn, N. Y.
Eichman, J. C., Mfg. Co., Baltimore, Md.
Em-Ess—The Meyer-Sniffen Co., New York, N. Y.
Emery, Wm. S., New York, N. Y.
Federal-Huber Co., Chicago, Ill.
Heap, William & Sons, Grand Haven, Mich. "Bull-" "Star."
Hedges & Bro., Newark, N. J.
The Hogan Mfg. Co., Hartford, Conn.
Impervio—The Trenton Potteries Co., Trenton, N. J.
Johns-Manville Corporation, New York, N. Y. "Sanitor."
Jones Hollow Ware Co., Baltimore, Md.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
McLane Quality—McLane Mfg. Co., Milford, N. H.

Met-All—Columbus Brass Co., Columbus, O.
Miller, Chas. A., Co., Sturgis, Mich.
Mott Iron Works, The J. L., Trenton, N. J.
Olmstead-Thomson Mfg. Co., The, New Britain, Conn.
Omala—The Galard Co., Newark, N. J. (white).
Peerless Selling Co., Evansville, Ind.
Perfect Tank & Seat Co., Syracuse, N. Y.
Pierce, Butler & Pierce Mfg. Corp., New York, N. Y. (Trade names—Pierce Luxo, Allison, Silent, Reverso, Union, Victor, Batter, Tremont.)
Republic—Stringer Bros. Co., Chicago, Ill.
Richmond Sanitary Mfg. Co., San Francisco, Cal.
Riverside Foundry & Galvanizing Co., Kalamazoo, Mich.
Shwab Bros. Co., New York, N. Y.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Standard Tank & Seat Co., Camden, N. J. (Trade names—Eureka, Ivory.)
Van Arnam Mfg. Co., Fort Wayne, Ind. (Trade names—VanArCo, Van Arnam).
White Beauty—The Humpryes Mfg. Co., Mansfield, Ohio.
Wolff Mfg. Corp., Chicago, Ill.

TANKS, WATER METER TESTER.

Ford—Ford Meter Box Co., Wabash, Ind.
Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.

TAPE, INSULATING, OR FRICTION.

Akron Black—The B. F. Goodrich Co., Akron, O.
Boston Woven Hose & Rubber Co., Cambridge, Mass. (Trade names—Brown, Bull Dog, Dauntless, Leader, Magic, Service, Sterling, Tiger, Wizard.)
Canfield Rubber Co., The, Bridgeport, Conn.
Erbestos Brake Lining Co., Philadelphia, Pa.
Goodrich White—The B. F. Goodrich Rubber Co., Akron, Ohio.
Hydro-Proof—Elkhart Rubber Works, Elkhart, Ind.
Johns-Manville Corporation, New York. "J. M. Friction."
Manson—The Okonite Co., Passaic, N. J.
Mechanical Rubber Co., The, Cleveland, Ohio. (Trade names—Buckeye, High Grade, Marco, Sterling, 2XL.)
Union Rubber & Asbestos Co., Trenton, N. J.
United States Rubber Co., New York, N. Y.

TAPE AND WICKING, ASBESTOS.

Allbestos Corporation, Philadelphia, Pa.
Asbestos Fibre Spinning Co., North Wales, Pa.
GARCo, Perfect Adjustable—General Asbestos & Rubber Co., Charleston, S. C.
Usaco—United States Asbestos Co., Manheim, Pa.
Watson, H. F., Erie, Pa.

TAPES, MEASURING.

Bernz, Otto, Co., Newark, N. J.
Chesterman—Wiebusch & Hilger, Inc., New York. (imported.)
Crogan Mfg. Co., Bangor, Me. "One Man," "One Man Junior," "Bangor."
Dietzgen, Eugene, Co., Chicago, Ill.
Gurley—W. & L. E. Gurley, Troy, N. Y.
Keuffel & Esser Co., Hoboken, N. J.
Lufkin Rule Co., Saginaw, Mich. (Trade names—Ass Skin, Atlas, Banner, Challenge, Metallic, Reliable, Rival, Sterling, Universal, Wolverine.)
One Man—Union Tool Co., Orange, Mass.
Starrett Co., The L. S., Athol, Mass.

TAPPERS, ELECTRIC.

Black & Decker Mfg. Co., The, Towson, Md.
Cincinnati Electrical Tool Co., Cincinnati, O.
U. S. Electrical Tool Co., Cincinnati, O.
Van Dorn Electric Tool Co., Cleveland, O.

TAPPERS, NUT.

Jarvis, Charles L., Company, The, Gildersleeve, Conn.
San Francisco Engineering Co., San Francisco, Cal.

TAPS, BIT BRACE, BLACKSMITHS', BOILERMAKERS', MACHINE SCREW THREAD, MACHINISTS' HAND, MACHINE NUT, PATCH BOLT, PULLEY, STAYBOLT, TAPER, TAPPER, ETC.

American Screw Co., Providence, R. I.
Anderson Tool & Supply Co., W. H., Detroit, Mich.
Bath, John, & Co., Inc., Worcester, Mass. "Easy-Cut."
Bay State Tap & Die Co., Mansfield, Mass. "Bay State."
Besly—Chas. H. Besly & Co., Chicago, Ill.
Brubaker, W. L., & Bros. Co., New York, N. Y.
Butterfield & Co., Div. Union Twist Drill Co., Derby Line, Vt.
Carpenter, J. M., Tap & Die Co., The, Pawtucket, R. I.
Detroit Twist Drill Co., Detroit, Mich.
Elterich, Chas., Co., New York, N. Y.
G. T. D., Gun, Maxi—Greenfield Tap & Die Corp., Greenfield, Mass.

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Moore & Moore, Inc., Reading, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Polk & Son, A. J., Millersburg, Pa.
Reed & Prince Mfg. Co., Worcester, Mass.
Reiff & Nestor Company, Lykens, Pa.
Reliable—Conant & Donelson Co., Conway, Mass.
Reliance—The Foote-Burt Co., Cleveland, O
Rochester Machine Screw Co., Rochester, N. Y
Russell Mfg. Co., The, Greenfield, Mass. "Russell Quality"
Scully Steel & Iron Co., Chicago, Ill.
Simplex Tool & Supply Co., Boston, Mass. "Simplex High Speed."
Standard Tool Co., The, Cleveland, O. "Shield Brand."
Thistle—Winter Bros. Co., Wrentham, Mass.
Toledo—Toledo Tap Co., Toledo, O.
Threadwell—The Threadwell Tool Co., Greenfield, Mass.
Vermont Tap & Die Corp., Newport, Vt.
X-Cel—Alvord Reamer & Tool Co., Millersburg, Pa.

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Hercules, G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.
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TAPS, COLLAPSIBLE.

Errington Mechanical Laboratory, New York, N. Y.
Geometric Tool Co., The, New Haven, Conn.
M. E. C.—Manufacturers Equipment Co., Chicago, Ill.
Modern—Consolidated Machine Tool Corp. of America, New York, N. Y.
National Acme Co., Cleveland, O. "Namco."
Pipe Machinery Co., Cleveland, Ohio.
Victor—Landis Machine Co., Victor plant, Waynesboro, Pa.

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Card Mfg. Co., S. W., Div. of Union Twist Drill Co., Mansfield, Mass.
G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass
Russell—Russell Mfg. Co., Greenfield, Mass.

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Morse Twist Drill & Machine Co., New Bedford, Mass.

TAPS, PIPE.

Bay State Tap & Die Co., Mansfield, Mass. "Bay State."
Brubaker, W. L., & Bros., New York, N. Y.
Butterfield & Co., Div. Union Twist Drill Co., Derby Line, Vt.
Card Mfg. Co., S. W., Div. Union Twist Drill Co., Mansfield, Mass.
Carpenter Tap & Die Co., J. M., Pawtucket, R. I.
Cleveland Twist Drill Co., The, Cleveland, O.
Conant & Donelson Co., Conway, Mass. "Reliable."
Crane Co., Chicago, Ill.
Detroit Twist Drill Co., Detroit, Mich.
Lancaster, Electric—Champion Blower & Forge Co., Lancaster, Pa.
Elterich, Chas., Co., New York, N. Y.
G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands—Hollands Mfg. Co., Erie, Pa.
Moore & Moore, Inc., Reading, Pa.
Mueller Co., Decatur, Ill.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Russell Mfg. Co., Greenfield, Mass. "Russell."
D. Saunders & Sons, Inc., Yonkers, N. Y. "Saunders."
Simplex Tool & Supply Co., Boston, Mass. "Simplex High Speed."
Standard Tool Co., Cleveland, O.
Thistle—Winter Bros. Co., Wrentham, Mass.
Threadwell—Threadwell Tool Co., Greenfield, Mass.
Victor—Emmert Mfg. Co., Waynesboro, Pa. (collapsible).
Walworth Company, Boston, Mass.

TAPS, SERIAL.

Wells—Greenfield Tap & Die Corp., Greenfield, Mass.

TAPS, STOVE BOLT.

Bay State—Bay State Tap & Die Co., Mansfield, Mass.
G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Threadwell Tool Co., Greenfield, Mass.

TAPS, TAPER.

Butterfield & Co., Div. Union Twist Drill Co., Derby Line, Vt.
Wells Tap & Die Co., Greenfield, Mass. "Pee Dee Que."

TARPAULINS.

Hettrick Mfg. Co., Toledo, O.
Johnson, J. W., Co., Chicago, Ill.

TEES, BASIN VENT.

Albrass Co., Inc., Coxsackie, N. Y.
American—American Sanitary Mfg. Co., Abingdon, Ill.
Haydenville Co., Haydenville, Mass.
Kretschmer Mfg. Co., Dubuque, Ia.
Loyal Brass Co., Cleveland, O.
Pittsburgh Valve & Fittings Co., Barberton, O.
Prier Brass Mfg. Co., Kansas City, Mo.
Richardson, Edro., Brass Co., Baltimore, Md.
Romaco—Robertshaw Thermostat Co., Youngwood, Pa.
United Brass Mfg. Co., Cleveland, O.

TEES, HYDRAULIC.

Hydraulic Press Mfg. Co., The, Columbus, O. (hydraulic.) "H-P-M."
Kaltenthaler, H. J., Philadelphia, Pa.
Walworth Company, Boston, Mass.

TEES, LAUNDRY TRAY.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Crane Co., Chicago, Ill.
Detroit Brass and Malleable Works, Detroit, Mich
Fee & Mason Mfg. Co., New York, N. Y.
Flagg, Stanley G., & Co., Philadelphia, Pa.
Grabler Mfg. Co., Cleveland, O.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., Elmira, N. Y.
Walworth Company, Boston, Mass.
Woodward-Wanger Co., Philadelphia, Pa.

TEES, RANGE BOILER.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Crane Co., Chicago, Ill.
Detroit Brass and Malleable Works, Detroit, Mich.
Exeter Brass Works, Exeter, N. H.
Hilton Brass Foundry, Hilton, N. J.
Illinois Malleable Iron Co., Chicago, Ill.
Lawler Waterfeed & Damper Co., Mt. Vernon, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, O.
Reading Foundry & Supply Co., Reading, Pa.
Stack Non By Pass—Stack Heater Co., Worcester, Mass.
Walworth Company, Boston, Mass.

TEES, SOIL PIPE.

Atchison Specialty Mfg. Co., Atchison, Kans. "Asco."

TEES, SUCTION.

McDaniel—Watson & McDaniel Co., Philadelphia, Pa.

TEES, UNION.

Dart, E. M., Mfg. Co., Providence, R. I.
Flagg, Stanley G., & Co., Philadelphia, Pa.
Grip—Ware Coupling & Nipple Co., Ware, Mass.
Illinois Malleable Iron Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
Pittsburgh Valve & Fittings Co., Barberton, O.
Rhode Island Fittings Co., Hills Grove, R. I. (bronze seat).
Richardson, Edro, Brass Co., Baltimore, Md.
Walworth Company, Boston, Mass.

TEES, WATER BACK.

Beekman—Fee & Mason Mfg. Co., New York, N. Y.

TEETH, SAW.

Hoe—R. Hoe & Co., New York.

TELLTALE, ELECTRIC, FOR ROPE TRANSMISSION.

Dodge Mfg. Corp., Mishawaka, Ind.

TEMPERATURE CONTROL.

Sarco—Sarco Company, Inc., New York, N. Y.

TEMPLATES FOR DRILLING FLANGES.

Peco—Pittsburgh Engineering Co., Jeanette, Pa.

TENONERS.

Crescent Machine Co., Leetonia, O.
Sidney Machine Tool Co., Sidney, O.

TENTS, CANVAS AND DUCK.

Hettrick Mfg. Co., Toledo, O.
Johnson, J. W., Co., Chicago, Ill.

TESTERS, BOILER TUBE.

Watson-Stillman Co., New York.

TESTERS, CENTER.

Ideal—Johnson & Miller, New York, N. Y.
Starrett Co., The L. S., Athol, Mass.

TESTERS OR TEST PUMPS, GAGE.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Ashcroft—Ashcroft Mfg. Co., New York, N. Y.
Ashton Valve Co., The, Cambridge, Mass.
Dead Weight—Star Brass Mfg. Co., Boston, Mass
Marsh & Co., Jas. P., Chicago, Ill.

TESTERS, GAS COCK.

Leiman Bros., New York, N. Y.

TESTERS, GASOLINE MOTOR.

Hammett Mfg. Co., Kansas City, Mo.

TESTERS, SCREW THREAD GAGE.

John-Sons Gage Works, Hartford, Conn.

TESTERS, WATER METER.

H. W. Clark Co., Mattoon, Ill. "Clark."
Ford—Ford Meter Box Co., Wabash, Ind.
Mueller Co., Decatur, Ill.

THAWERS, PIPE, STEAM.

Aeroil Burner Co., Union Hill, N. J.
Bernz, Otto, Co., Newark, N. J.
Garrison-Heiland Corp., New York, N. Y.
Hauck Mfg. Co., Brooklyn, N. Y.
Koven, L. O., & Bro., Jersey City, N. J.
Macleod Co., Cincinnati, O.
Nu Idea Stand Co., Kokomo, Ind.
Trageser, John, Steam Copper Works, New York, N. Y.
Turner Brass Works, Sycamore, Ill.

THERMIT, WELDING.

Metal & Thermit Corp., New York, N. Y.

THERMOMETERS, HOT WATER.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Beck & Co., Oscar, Brooklyn, N. Y.
Bristol Co., Waterbury, Conn.
Brown Instrument Co., Philadelphia, Pa.

FREAS HOT WATER THERMOMETERS
Accurate Reliable

FRANCIS L. FREAS GLASS WORKS, Inc.
Conshohocken, Pa.

Freas, Francis L., Glass Works, Conshohocken, Pa.
Magee Steam Specialty Corp., New York, N. Y.
Marsh, Jas. P., & Co., Chicago, Ill.
Moeller, A. E., Co., Brooklyn, N. Y.
National Gauge Co., Brooklyn, N. Y.
Penn Engineering Co., Philadelphia, Pa.
Pierce, Butler & Pierce Mfg. Corp., New York, N. Y
Powers Regulator Co., Chicago, Ill.
Scientific Instrument Co., Detroit, Mich.
Standard Thermometer Co., Boston, Mass.
Tag—C. J. Tagliabue Mfg. Co., Brooklyn, N. Y.
Tycos., Taylor Instrument Companies, Rochester, N. Y.
Weiss, A. A., & Son, Brooklyn, N. Y.

THERMOMETERS, INDICATING.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Ashton Valve Co., The, Cambridge, Mass.
Bristol Co., Waterbury, Conn.
Engelhard—Charles Engelhard, Inc., New York, N. Y.
F. & F.—Scientific Materials Co., Pittsburgh, Pa.
Foxboro Co., Inc., Foxboro, Mass.
Freas—Francis L. Freas Glass Works, Conshohocken, Pa.
Marsh & Co., Jas. P., Chicago, Ill.
Moeller, A. E., Brooklyn, N. Y.
Moto-Meter Co., The, Long Island City, N. Y.
National Gauge Co., Brooklyn, N. Y.
National Gauge & Equipment Co., La Crosse, Wis. (distance type).
Parks, Harry, S., Co., Philadelphia, Pa.
Philadelphia Thermometer Co., Philadelphia, Pa.
Precision Thermometer & Instrument Co., Philadelphia, Pa. "Prince."
Sarco—Sarco Co., Inc., New York, N. Y.
Scientific Instrument Co., Detroit, Mich.
Silver—Silver & Co., Brooklyn, N. Y.
Standard Thermometer Co., Boston, Mass.
Tag—C. J. Tagliabue Mfg. Co., Brooklyn, N. Y.
Tycos—Taylor Instrument Companies, Rochester, N.Y.
Weiss, A. A., & Son, Brooklyn, N. Y.
Wilder—The Wilder-Pike Thermometer Co., Inc., Troy, N. Y.
Zaubitz, August, New York, N. Y.

THERMOMETERS, RECORDING.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Bristol's—The Bristol Co., Waterbury, Conn.
Foxboro Co., Inc., The, Foxboro, Mass.
Leeds & Northrup Co., Philadelphia, Pa.

Marsh, James P., & Co., Chicago, Ill.
Precision Thermometer & Instrument Co., Philadelphia, Pa.
Standard—Standard Thermometer Co., Boston, Mass
Tagliabue, C. J., Co., Brooklyn, N. Y. "Tag."
Thwing Instrument Co., Philadelphia, Pa.
Tycos—Taylor Instrument Companies, Rochester, N. Y.

THERMOMETERS, SHOWER BATH.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Mott, J. L., Iron Works, The, Trenton, N. J.
Pierce, Butler & Pierce Mfg. Corp., New York, N. Y.
Speakman Co., Wilmington, Del.
Smith, E. C., Mfg. Co., Chicago, Ill.
Union Thermometer Co., Inc., New York.

THERMOSTATS.

Atlas Valve Co., Newark, N. J.
Beers—Beers Thermostat Service, Rochester, N. Y.
Garrett, W. D., & Co., New York, N. Y.
Jewell—Honeywell Heating Specialties Co., Wabash, Ind.
Johnson—Johnson Service Co., Milwaukee, Wis.
Lawler Waterfeed & Damper Co., Mount Vernon, N. Y.
Lawson—Lawson Mfg. Co., Pittsburgh, Pa.
McAlear Mfg. Co., The, Chicago, Ill.
Marvel—American Thermostat Co., Newark, N. J.
Mercoid—Federal Gauge Co., The, Chicago, Ill.
Minneapolis-Honeywell Regulator Co., Minneapolis, Minn.
National Regulator Co., Chicago, Ill.
Powers—The Powers Regulator Co., Chicago, Ill.
Precision Thermometer & Instrument Co., Philadelphia, Pa.
Robertshaw—Robertshaw Thermostat Co., Youngwood, Pa.
Sarco Company, Inc., New York, N. Y.
Spencer Thermostat Co., Cambridge, Mass.
Standard—Standard Thermometer Co., Boston, Mass.
Swan—Klipfel Mfg. Co., Chicago, Ill.
Thermoflash—B. Ryan Company, New York, N. Y. (for water heaters).
Witt, G. E., Co., Inc., San Francisco, Cal.
Wolverine—Wolverine Temperature Regulator Co., Marshall, Mich.
Yoder—Yoder-Thomas Mfg. Co., Cleveland, O.

THERMOSTATS, WATER HEATER.

Swan—Klipfel Mfg. Co., Chicago, Ill.
Thermo-Storage—Federal Water Heater Co., Los Angeles, Cal.
Time-O-Stat—Time-O-Stat Corp., Milwaukee, Wis.
Y. T.—Bastian-Morley Co., La Porte, Ind.

THIMBLES, BIBB.

Albrass Co., Inc., Coxsackie, N. Y.
Hays Mfg. Co., Erie, Pa.

THIMBLES, FLOOR.

Vosburg—N. O. Nelson Mfg. Co., St. Louis, Mo.

THIMBLES, PIPE.

Adams Co., The, Dubuque, Iowa.
American Foundry & Mfg. Co., St. Louis, Mo.
Blake Specialty Co., Rock Island, Ill.
Gulf States Pipe Corp., Anniston, Ala.
Marine Hardware Equipment Co., South Portland, Me.

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Hot Dipped Galvanized

Fig. 323

Fig. 322

Fig. 326

Solid Thimbles in Galvanized Iron for use in ship's rigging in sizes ½ to 1⅞ inches width of score.
Open Thimbles for Manila Rope in sizes ⅜ to 4 inches width of score.
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Modern Iron Works, Quincy, Ill.
Prentice, L. H., Co., Chicago, Ill. (Trade names—Prentice, Wilson.)
Sanitary Company of America, Linfield, Pa.

THIMBLES, ROPE.

Broderick & Bascom Rope Co., St. Louis, Mo.
Chicago Hardware & Fixture Co., Chicago, Ill.
Fischer & Hayes Rope & Steel Co., Chicago, Ill.
Lanz, M., Bolt Co., Pittsburgh, Pa.
Macwhyte Company, Kenosha, Wis.
Marine Hardware Equipment Co., South Portland, Me.
Laughlin, Thos., Co., The, Portland, Me.
Wilcox, Crittenden & Co., Inc., Middletown, Conn.

THIMBLES, SEWER.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Sanitary Company of America, Linfield, Pa.

THIMBLES, WALL.

Albrass Co., Inc., Coxsackie, N. Y.
Hilton Brass Foundry, Hilton, N. J.

THREADERS, NIPPLE, CEILING.

Armstrong Mfg. Co., The, Bridgeport, Conn.
Borden Co., Warren, O.

THREADERS, PIPE, RATCHET.

(See also Stocks and Dies.)

Beaver—The Borden Co., Warren, O.
Toledo—Toledo Pipe Threading Machine Co., Toledo, Ohio.

TIES, WALL, GALVANIZED.

Heckman Tool & Mfg. Co., Chicago, Ill. "Heckman."

TIGHTENERS, BELT.

(For clamps, see "Clamps, Belt.")

American Tool & Machine Co., Boston, Mass.
American Saw Mill Mach'y Co., Hackettstown, N. J.
Barnard & Leas Mfg. Co., Moline, Ill.
Barry Co., Muscatine, Ia. "Barry."
Barry—R. & J. Dick Co., Inc., Passaic, N. J.
Caldwell, H. W., & Son Co., Chicago, Ill.
Dodge Mfg. Corp., Mishawaka, Ind.
Downs, I. G., Denver, Colo. "Arcgrip."
Eastwood Co., Benjamin, Paterson, N. J.
Falls Clutch & Machinery Co., Kent, O.
Hill Clutch Machine & Foundry Co., Cleveland, O. "Steel Arm."
Huntsville Foundry & Machine Co., Huntsville, Ala.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Korap-Lenix—F. L. Smidth & Co., New York, N. Y.
Lane Mfg. Co., Montpelier, Vt.
Link-Belt Company, Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
Naylor Bros., Peekskill, N. Y.
Nordyke & Marmon Co., Indianapolis, Ind.
Steelarm—The Hill Clutch Machine & Foundry Co., Cleveland, Ohio.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Trempe's Automatic, Berry Universal—O. V. Hooker & Son, St. Johnsbury, Vt.
Weller Mfg. Co., Chicago, Ill.
Wood, T. B., Sons Company, Chambersburg, Pa.
Wolf Co., The, Chambersburg, Pa.

TIPS, CUTTING AND WELDING.

Meco—Modern Engineering Co., Saint Louis, Mo.
Smith's Inventions, Inc., Minneapolis, Minn.

TIRES, RUBBER, TRUCK WHEEL.

Cincinnati Rubber Mfg. Co., The, Cincinnati, O.
Dominion Asbestos and Rubber Corp., New York.
Fairbanks Co., The, New York, N. Y.
Goodrich—B. F. Goodrich Co., Akron, O.
Hewitt Rubber Co., Buffalo, N. Y.

TONGS, BLACKSMITHS'.

Champion-De Arment Tool Co., Meadville, Pa.
Heller Bros. Co., Newark, N. Y.
Horseshoe—Stanley Rule & Level Co., Atha Dept., New Britain, Conn.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Milwaukee Tool & Forge Co., Milwaukee, Wis.
Stearns & Co., E. C., Syracuse, N. Y.
Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Verona Tool Works, Pittsburgh, Pa.
Warren Tool & Forge Co., The, Warren, Ohio.

TONGS, CHAIN, PIPE.

(See "Wrenches, Pipe Chain.")

TONGS, CLINKER, HEATING BOILER & FURNACE.

Anderson, W. H., Tool & Supply Co., Detroit, Mich.
Leetonia Tool Co., Leetonia, O.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.

TONGS CRUCIBLE.

Anderson Tool & Supply Co., W. H., Detroit, Mich.
Delta—New Jersey Foundry & Machine Co., New York.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Obermayer, S., Co., The, Cincinnati, Ohio.
Paxson Co., J. W., Philadelphia, Pa.

TONGS, PIPE.

Ashcroft Mfg. Co., The, New York, N. Y. "Ashcroft."
The Darling Valve & Mfg. Co., Ltd., Williamsport, Pa. "Darling."
Ideal—Brunswick-Kroeschell Co., Chicago, Ill.
Jumbo—Jumbo Mfg. Co., Pittsburgh, Pa.
Walworth Company, Boston, Mass.
Ward-Love Pump Corp., Rockford, Ill.
Williams, J. H., & Co., Buffalo, N. Y.

TONGS, PIPE LOWERING.

Mueller Co., Decatur, Ill.

TONGS, RADIATOR CARRYING.

E.R.L.—E. R. Lumsden, Indiana, Pa.
Standard—Wm. Cromley, Lewisburg, Pa.

TONGS, RAIL AND TIE.

Duffy Manufacturing Co., Chicago, Ill.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Klein-Logan Co., Pittsburg, Pa.
Verona Tool Works, Pittsburgh, Pa.
Warren Tool & Forge Co., The, Warren, Ohio.

TONGS, RIVET.

Duffy Manufacturing Co., Chicago, Ill.
Verona Tool Works, Pittsburgh, Pa.
Vulcan Tool Mfg. Co., The, Quincy, Mass.

TONGS, SHEET & TIN MILL.

Quikwerk—The Warren Tool & Forge Co., Warren, O.

TOOL SETS, HOLLOW HANDLE.

Dikeman Mfg. Co., Norwalk, Conn.
Goodell-Pratt Co., Greenfield, Mass.
Millers Falls Co., Millers Falls, Mass.
North Bros. Mfg. Co., Philadelphia, Pa. ("Yankee Radio Set.")

Red Devil—Smith & Hemenway Co., Irvington, N. J.
Robinson, M. W., Co., The, New York, N. Y. (Trade names—Buell's, Rollis, Sur-Pass.)
Threadwell Tool Co., Greenfield, Mass.

TOOLS AND WAYS, BALANCING.

Anderson, W. H., Tool & Supply Co., Detroit, Mich.
Bowsher's Balancing Ways—The N. P. Bowsher Co., South Bend, Ind.
20th Century Rockford—Rockford Tool Co., Rockford, Ill.

TOOLS, BEADING.

Anderson, W. H., Tool & Supply Co., Detroit, Mich.
Buffum Tool Co., Louisiana, Mo.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Leetonia Tool Co., Leetonia, Ohio.
Lovejoy Tool Works, Chicago, Ill.
Mephisto—The W. A. Ives Mfg. Co., Wallingford, Conn.
Mound—Mound Tool Co., St. Louis, Mo.
Wiedeke—Gustave Wiedeke & Co., Dayton, O.

TOOLS, BELL CENTERING.

Braunsdorf-Mueller Co., Elizabeth, N. J.

TOOLS, BELT LACING.

Detroit—Detroit Belt Lacer Co., Detroit, Mich.
Clipper—Clipper Belt Lacer Co., Grand Rapids, Mich
Kerr Co., Inc., New York, N. Y.
L. X.—Manufacturers' Belt Hook Co., Chicago, Ill.

TOOLS, BELT MAKERS'.

L. X.—Manufacturers' Belt Hook Co., Chicago, Ill.
Raniville, F., Co., Grand Rapids, Mich.

TOOLS, BLACKSMITHS' AND HORSESHOERS'.

Buffum Tool Co., Louisiana, Mo.
Chambersburg Engineering Co., Chambersburg, Pa.
Champion Blower & Forge Co., Lancaster, Pa.
Champion-De Arment Tool Co., Meadville, Pa.
Cincinnati Tool Co., The, Cincinnati, O.
Cochise Rock Drill Mfg. Co., Los Angeles, Cal.
Goodell-Pratt Co., Greenfield, Mass.
Heller Tool Co., Newark, N. J.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Klein-Logan Co., The, Pittsburg, Pa.
Peck, Stow & Wilcox Co., Southington, Conn.
Quikwerk—The Warren Tool & Forge Co., Warren, O.
Smith, H. D., & Co., The, Plantsville, Conn.
Stanley Rule & Level Co., Atha Div., New Britain, Conn.
Stanley ,Works, The, Atha Dept. New Britain, Conn. "Horseshoe."
Verona Tool Works, Pittsburgh, Pa.
V & B—Vaughan & Bushnell Mfg. Co., Chicago, Ill.

TOOLS, BLASTING.

Hardsocg, Martin, Co., Pittsburgh, Pa.

TOOLS, BOILERMAKERS'.

Arrow Tools, Inc., Chicago, Ill.
Chambersburg Engineering Co., Chambersburg, Pa.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Faessler, J., Mfg. Co., The, Moberly, Mo.
Heartley Machine, Variety Iron & Tool Works, Toledo, O.
Leetonia Tool Co., Leetonia, O.
Lovejoy Tool Works, Chicago, Ill.
Mound—Mound Tool Co., St. Louis, Mo.
Oswego Tool Co., Oswego, N. Y.
Plomb Tool Mfg. Co., Los Angeles, Cal.
Wiedeke, Gustave, & Co., Dayton, O.

TOOLS, BORING, LATHE.

Alert Tool Co., Philadelphia, Pa.
Armstrong—Armstrong Bros. Tool Co., Chicago, Ill.
Art Tool Co., Bridgeport, Conn. (offset, adjustable).
Bullard Machine Tool Co., The, Bridgeport, Conn.
Champion—Western Tool & Mfg. Co., Springfield, O.
Clark Machinery Co., Cleveland, O.
Davis Boring Tool Co., St. Louis, Mo. (expansion). "Davis."
E-Z Set—Unity Mfg. Co., The, Cleveland, Ohio.
Forest City Bit & Tool Co., Rockford, Ill.
Hill Tools—Union Tool Co., Orange, Mass.
Ingersoll Milling Machine Co., The, Rockford, Ill.
Kelly—The Kelly Reamer Co., Cleveland, O.
Lutz—Lutz Co., Inc., Philadelphia, Pa.
Madison Mfg. Co., Muskegon, Mich.
Maxwell Products, The, Cleveland, O. "E-Z Set."
Millers Falls Co., Millers Falls, Mass.
O. K. Tool Co., Inc., Shelton, Conn.
Ready Tool Co., The, Bridgeport, Conn. "Red-E."
Sampi—Allen & Curtiss Co., Mishawaka, Ind.
Stanworth Tool Mfg. Co., Inc., Indianapolis, Ind.
Toledo—The Toledo Pipe Threading Machine Co., Toledo, O.
Williams, J. H., & Co., Buffalo, N. Y.

TOOLS, BRICKLAYERS', CEMENT WORKERS' AND MASONS'.

Abram Cement Tool Co., Detroit, Mich.
Anderson Tool & Supply Co., W. H., Detroit, Mich.
Atkins, E. C., & Co., Indianapolis, Ind.
Buffum Tool Co., Louisiana, Mo.
Clipper Tool Co., Buffalo, N. Y.
Drew, C., & Co., Kingston, Mass.
Empire—Empire Level Mfg. Co., Milwaukee, Wis.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Johnson, Wm., Firm of, Newark, N. J.
Kohler, F. E., Co., The, Canton, O.
Mogul—S. Cheney & Son, Manlius, N. Y.
Mound Tool Co., St. Louis, Mo. "Mound."
Plomb Tool Mfg. Co., Los Angeles, Cal.
S & H—Holtum Mfg. Co., Freeport, Ill.
Sayre, L. A., Co., Newark, N. J.
Stearns, E. C., & Co., Syracuse, N. Y.
Sturgis—Cement Tools Co., Los Angeles, Cal.
Vulcan—Vulcan Tool Mfg. Co., Quincy, Mass.

TOOLS, CALKING.

American Saw & Tool Works, Chicago, Ill.
Anderson Tool & Supply Co., W. H., Detroit, Mich.
Brown Fence Co., Chattanooga, Tenn.
Buffum Tool Co., Louisiana, Mo.
Delaware—Otto Bernz Co., Inc., Newark, N. J.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Irvington Mfg. Co., Irvington, N. J.
Johnson, Wm., Firm of, Newark, N. J.
Kilborn & Bishop Co., New Haven, Conn.
Klein-Logan Co., The, Pittsburgh, Pa.
Leetonia Tool Co., Leetonia, Ohio.
Laughlin, Thomas, Co., The, Portland, Me.
Lovejoy—Lovejoy Tool Works, Chicago, Ill.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Mephisto—The W. A. Ives Mfg. Co., Wallingford, Conn.
Misener & Irving Mfg. Co., Inc., Syracuse, N. Y. "Indian."
Mound Tool Co., St. Louis, Mo. "Mound."
Mueller Co., Decatur, Ill.
National Tool Co., New York, N. Y.
Pollard—Joseph G. Pollard Co., Inc., Brooklyn, N. Y.
Sayre, L. A., & Son, Newark, N. J.
Stanley Rule & Level Plant, Atha Dept., New Britain, Conn.
Starbuck, R. M., & Sons, Hartford, Conn. "Starbuck."
Tucker Co., Inc., New York, N. Y.
White Co., The L. & I. J., Buffalo, N. Y.
W. W.—Woodward-Wanger Co., Philadelphia, Pa.

TOOLS, CARPENTERS'.

(See also Specific Headings.)

Atkins, E. C., & Co., Indianapolis, Ind.
Buck Brothers, Milbury, Mass.
Diamond Edge—Norvell-Shapleigh Hdw. Co., St. Louis, Mo.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Goodell-Pratt Co., Greenfield, Mass.
Hood Bros., Philadelphia, Pa.
Keen Kutter—Simmons Hardware Co., St. Louis, Mo.
Mack & Co., Rochester, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Pilot—Consolidated Tool Works, Inc., New York, N. Y.
Sandusky Tool Corporation, Sandusky, O.
Stanley Works, The, New Britain, Conn.
Starrett, The L. S., Co., Athol, Mass.
Swan Co., The James, Seymour, Conn.
White, L. & I. J. Co., The, Buffalo, N. Y.
Yankee—North Bros. Mfg. Co., Philadelphia, Pa.

TOOLS, COMBINATION.

Chicago Flexible Shaft Co., Chicago, Ill. "Stewart Handy Worker."
Ideal—Tessmer Machine & Tool Co., Detroit, Mich
Spartan—The Drop Forging Co. of New York, Jersey City, N. J.
Williams, J. H., & Co., Buffalo, N. Y. (automobile.)

TOOLS, COOPERS'.

Barton—Mack Tool Co., Inc., East Rochester, N. Y.
Cincinnati Tool Co., Cincinnati, O.
Drew, C., & Co., Kingston, Mass.
Duffy Mfg. Co., Chicago, Ill.
Heartley Machine, Variety Iron & Tool Works, Toledo, O.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Sandusky Tool Corporation, Sandusky, O.
Stanley Rule & Level Plant, Atha Dept., New Britain, Conn. "Horseshoe."
White Co., The, L. & I. J., Buffalo, N. Y. Sandusky.

TOOLS, CUTTING-OFF.

(See "Holders, Tool.")

TOOLS, DIAMOND POINTED.

Acme Diamond Tool Co., New York, N. Y.
Bausch & Lomb Optical Company, Rochester, N. Y.
Crafts, Arthur A., & Co., Boston, Mass.
Diamonds—Diamond Tool & Die Works, Hartford, Conn.
Dickinson—Thos. L. Dickinson, New York, N. Y.
Feralium—Joyce-Koebel Co., Inc., New York, N. Y.
Francis & Co., Hartford, Conn.
Gilmore, F. F., Co., Boston, Mass.

TOOLS, FILLET (FOR APPLYING).

Knight, H. W., & Son, Seneca Falls, N. Y.

TOOLS, DRAFTSMEN'S.

Starrett, The L. S., Co., Athol, Mass.

TOOLS, DRILLING, OFFSET.

Harris Engineering Co., Bridgeport, Conn.

TOOLS, ELECTRICIANS'.

Hargrave—Cincinnati Tool Co., Cincinnati, O.
Independent Pneumatic Tool Co., Chicago, Ill.
Red Devil—Irvington Mfg. Co., The, Irvington, N. J.

TOOLS, ETCHING, ELECTRIC.

Luma—Luma Electric Equipment Co., Toledo, O.

TOOLS, FARRIERS'.

Champion De Arment Tool Co., Meadville, Pa.

TOOLS, FENCE.

Irvington Mfg. Co., Irvington, N. J.
Red Devil—Smith & Hemenway Co., Irvington, N. J.

TOOLS, FIRING.

Anderson Tool & Supply Co., W. H., Detroit, Mich.
Cook & Chick Co., Chicago, Ill. (boiler room).
Hauer, J. B., Inc., Brooklyn, N. Y.
Paul B. Huyette Co., Philadelphia, Pa. "Hi-Heat."
Leetonia Tool Co., The, Leetonia, O.
Mound Tool Co., St. Louis, Mo. "Mound."
National Tool Co., New York, N. Y.
Pollard—Joseph G. Pollard Co., Inc., Brooklyn, N. Y.
Spaulding & Metcalf, Philadelphia, Pa. "Hi-Heat."
Treadwell, M. H., Co., New York, N. Y.

TOOLS, HYDRAULIC.

Chambersburg Engineering Co., Chambersburg, Pa.
Hydraulic Press Mfg. Co., The, Columbus, O.

TOOLS, ICE.

American Saw & Tool Works, Chicago, Ill.
Columbus Handle & Tool Co., The, Columbus, Ind.
Creasey—Gruman Ice Tool Works, Branchville, Conn.
Gifford-Wood Co., Hudson, N. Y.
Gruman—Gruman Ice Tool Works, Inc., Branchville, Conn.
Heartley Machine, Variety Iron & Tool Works, Toledo, O.
Hoosier Metal Products, Inc., Columbus, Ind.
Leach Company, The, Oshkosh, Wis.
Snell Mfg. Co., Fiskdale, Mass.
Staatsburg Ice Tool Works, Staatsburg, N. Y.
White Co., The L. & I. J., Buffalo, N. Y.

TOOLS, KEY SEATING.

National Machine Tool Co., Cincinnati, O. (for pulleys and gears).
Union Tool Co., Orange, Mass.

TOOLS, KNURLING.

Alert Tool Co., Philadelphia, Pa.
Armstrong—Armstrong Bros. Tool Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Braunsdorf-Mueller Co., Elizabeth, N. J.
Goodell-Pratt Co., Greenfield, Mass.
Western Automatic Tool Co., Elyria, O. (wrench).
Williams, J. H., & Co., Buffalo, N. Y.

TOOLS, LATHE AND PLANER, FORGED.

(See also "Holders, Tool.")

Armstrong Brothers Tool Co., Chicago, Ill. "Gang."
Arrow Tools, Inc., Chicago, Ill.
Gisholt—Gisholt Machine Co., Madison, Wis.
Goodell-Pratt Co., Greenfield, Mass.
Lovejoy—Lovejoy Tool Co., Inc., Springfield, Vt.
Marcy Tool Works, Inc., Putnam, Conn.
Red-E—The Ready Tool Co., Bridgeport, Conn.
Rivett Lathe & Grinder Co., Brighton, District of Boston, Mass.
Stellite—Union Carbide & Carbon Corp., New York, N. Y.
Union Tool Co., Orange, Mass.
Vulcan—J. H. Williams Co., Buffalo, N. Y.
ZuBar—ZuBar Mfg. Co., Inc., Philadelphia, Pa.

TOOLS, LINEMEN'S.

Columbus Handle & Tool Co., Columbus, Ind.
Dicke Tool Co., The, Downers Grove, Ill.
Klein, Mathias, & Sons, Chicago, Ill.
Leach Company, The, Oshkosh, Wis.
Red Devil—Smith & Hemenway Co., Irvington, N. J.
Western Electric Co., Inc., Chicago, Ill.

TOOLS, LOGGING.

American, Blue Line, Champion, Clyde, Columbus, Evart—American Logging Tool Co., Evart, Mich.
Columbus Handle & Tool Co., The, Columbus, Ind.
Dixie Logging Tool Co., Chattanooga, Tenn.
Hoosier Metal Products, Inc., Columbus, Ind.
Kelly Axe Mfg. Co., Charleston, W. Va.
Leach Company, The, Oshkosh, Wis.
Stanley Rule & Level Plant, Atha Dept., New Britain, Conn. "Horseshoe."
Warren Axe & Tool Co., Warren, Pa. "Bull Dog."

TOOLS, MACHINISTS', FINE.

Brown & Sharpe Mfg. Co., Providence, R. I.
Newman Mfg. Co., Cincinnati, O.
Plomb Tool Mfg. Co., Los Angeles, Cal.
Slocomb—J. T. Slocomb Co., Providence, R. I.
Starrett, The L. S., Co., Athol, Mass.

TOOLS, MILLING.

American Tool & Machine Co., Boston, Mass.
Brown & Sharpe Mfg. Co., Providence, R. I.
Geometric Tool Co., The, New Haven, Conn.
Modern—Consolidated Machine Tool Corp. of America, New York, N. Y.
Mummert-Dixon Co., Hanover, Pa.
O. K. Tool Co., Inc., Shelton, Conn.
Rogers, John M., Works, Inc., The, Gloucester City, N. J.
Union Twist Drill Co., Athol, Mass.
Vixen—Vixen Tool Co., Newark, N. J.

TOOLS, MINING.

American Mining Tool Co., Ottumwa, Ia.
Gill Mfg. Co., The, Phillipsburg, Pa.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Leetonia Tool Co., The, Leetonia, O.
Union—The Martin Hardsocg Co., Pittsburgh, Pa.
Verona Tool Works, Pittsburg, Pa.
Warwood—Warwood Tool Co., Wheeling, W. Va.

TOOLS, MOLDERS'.

Burr's Damascus Tool Works, Detroit, Mich.
Dobson—William Dobson, Canastota, N. Y.

TOOLS, OIL WELL.

Armstrong—Armstrong Mfg. Co., Waterloo, Iowa.
Hughes Tool Co., Houston, Tex.
Keystone Driller Co., Beaver Falls, Pa.
Masseth—Masseth Packer & Machine Co., Butler, Pa.
Oil Well Supply Co., Pittsburgh, Pa.
Samsco—San Antonio Machine Supply Co., San Antonio, Texas.
Spang—Spang & Company, Butler, Pa. (Fishing.)
Union Tool Co., Torrance, Cal.
Wilson & Willard Mfg. Co., Los Angeles, Cal.

TOOLS, PACKING.

Chesterton's—A. W. Chesterton Co., Boston, Mass.
Kotten Machine Co., Jersey City, N. J. (Condenser.)
Mound Tool Co., St. Louis, Mo.
Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.

TOOLS, PAVING.

Anderson, W. H., Tool & Supply Co., Detroit, Mich.
Lyman—Benj. K. Lyman & Co., Chicago, Ill.
Verona Tool Works, Pittsburgh, Pa.
Vulcan Tool & Mfg. Co., The, Quincy, Mass.

TOOLS, PICK UP.

Key—Key Boiler Equipment Co., East St. Louis, Ill.

TOOLS, PIPE LINE CONSTRUCTION.

National—National Transit Pump & Machine Co., Oil City, Pa.

TOOLS, PLUMBERS', STEAM AND GAS FITTERS'.

(Look for name of article desired, such as "Stocks," "Dies," "Wrenches.")

Anderson, W. H., Tool & Supply Co., The, Detroit, Mich.
Armstrong Mfg. Co., Bridgeport, Conn.
Beaver—The Borden Co., Warren, O.
Buffum Tool Co., Louisiana, Mo.
Diener, Geo. W., Mfg. Co., Chicago, Ill.

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No. 4170
Double Cone Bibb Seat Reamer. Best tool on the market, for inside or outside threaded fittings. 4 cutters with each.

Greenfield Tap & Die Corp., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa.
Hood Bros, Philadelphia, Pa.
Johnson, Wm., Firm of, Newark, N. J.
Mueller Co., Decatur, Ill.
Pilley's—Pilley Packing & Flue Brush Mfg. Co., St. Louis, Mo.
Plomb Tool Co., Los Angeles, Cal.
Toledo Pipe Threading Machine Co., Toledo, O.
Vanderman Mfg. Co., The, Willimantic, Conn.
Vulcan—J. H. Williams & Co., Buffalo, N. Y.
Walworth Company, Boston, Mass.
Warnock Mfg. Co., Worcester, Mass.
W. W.—Woodward-Wanger Co., Philadelphia, Pa.

TOOLS, PNEUMATIC.

Amco—Amco Sales Corp., Chicago, Ill.
American Air Compressor Works, Brooklyn, N. Y. "Fairhurst."
Barr Rapid Production—Pennsylvania Pneumatic Co., Erie, Pa
Canton—Canton Pneumatic Tool Co., Canton, O.
Chicago Pneumatic Tool Co., New York, N. Y. (portable grinder). "Little Giant."
Dallett Company, Philadelphia, Pa.
Dayton Pneumatic Tool Co., The, Dayton, O. (Trade names—Champion, Green, New Dayton.)
Hercules—The Buckeye Portable Tool Co., Dayton, O.
Independent Pneumatic Tool Co., Chicago, Ill. "Thor."
Ingersoll-Rand Co., New York, N. Y. "Crown," "Little David," "Imperial."
Kotten Machine Co., Jersey City, N. J.
Master—Wm. H. Keller, Inc., Grand Haven, Mich.
Schramm—Schramm, Inc., Westchester, Pa.
Sellers, Wm., & Co., Inc., Philadelphia, Pa.
Turbine, Turbine Jr.—Turbine Air Tool Co., Cleveland, O.
Worthington Pump & Machinery Corp., New York, N. Y.

TOOLS, RAILROAD TRACK.

Duffy Mfg. Co., Chicago, Ill.
Handlan-Buck Mfg. Co., St. Louis, Mo.
Hubbard & Co., Pittsburgh, Pa.
Iron City Tool Works, Pittsburgh, Pa. "Iron City Star."
Klein-Logan Co., The, Pittsburgh, Pa.
Leetonia Tool Co., Leetonia, O.
Manning, Maxwell & Moore, Inc., New York, N. Y.
Milwaukee Tool & Forge Co., Milwaukee, Wis.
O'Leary & Son Co., Arthur, Chicago, Ill.
Stanley Rule & Level Plant, Atha Dept., New Britain, Conn.
Verona Tool Works, Pittsburgh, Pa.
Wiedeke & Co., Gustave, Dayton, O.
Western Tool & Forge Co., Brackenridge, Pa.

TOOLS, RATCHET BORING.

Toledo—The Toledo Pipe Threading Machine Co., Toledo, O.

TOOLS, ROAD GRADING.

The American Steel Scraper Co., Sidney, O.
Barber Asphalt Co., The, Philadelphia, Pa.

TOOLS, ROOFING AND PITCHING.

Belden's Improved—The Belden Machine Co., New Haven, Conn.
Lyman—Benj. K. Lyman & Co., Chicago, Ill.
National Tool Co., New York, N. Y.
Niagara Machine & Tool Works, Buffalo, N. Y.
Vulcan—Vulcan Tool Mfg. Co., Quincy, Mass.

TOOLS, SAW.

Armstrong—Armstrong Mfg. Co., Portland, Ore.
Atkins—E. C. Atkins & Co., Indianapolis, Ind.
Atkins Pattern—Clipper Tool Co., Buffalo, N. Y.
Disston & Sons, Inc., Henry, Philadelphia, Pa.
Frank Edge & Co., Grand Rapids, Mich.
Hoe—R. Hoe & Co., New York.
Machinery Co. of America, Grand Rapids, Mich.
Simonds Saw & Steel Co., Fitchburg, Mass.
Southern Saw Works, Atlanta, Ga.
Stearns, E. C., & Co., Syracuse, N. Y.

TOOLS, SCREW CUTTING, LATHE.

G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Rivett Lathe and Grinder Corporation, Brighton, Boston, Mass.

TOOLS, SHAPER.

(See "Holders, Tool.")

TOOLS, SHIP CARPENTERS'.

Barton—Mack Tool Co., Inc., East Rochester, N. Y.
Mephisto—The W. A. Ives Mfg. Co., Wallingford, Conn.

TOOLS, SLAG DIGGING.

Cincinnati—Rivet Cutting Gun Co., Cincinnati, O.

TOOLS, STONECUTTERS'.

Chicago Pneumatic Tool Co., New York, N. Y. "Boyer," "Oldham."
Dallett Company, Philadelphia, Pa.
Heartley Machine, Variety Iron & Tool Works, Toledo, O.
Horseshoe—The Stanley Rule & Level Plant, Atha Dept., New Britain, Conn.
Ingersoll-Rand Co., New York, N. Y.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
National Tool Co., New York, N. Y.
Trow & Holden Co., Barre, Vt.
Vulcan Tool Mfg. Co., The, Quincy, Mass.

TOOLS, STRUCTURAL IRON WORKERS'.

Horseshoe—The Stanley Rule & Level Plant, Atha Dept., New Britain, Conn.
Vulcan Tool Mfg. Co., The, Quincy, Mass.

TOOLS, STUD SETTING.

Procunier, William L., Chicago, Ill.

TOOLS, TAPPING MACHINE.

Niles-Bement-Pond Co., New York, N. Y.
Scully, Jones & Co., Chicago, Ill.
Walworth Company, Boston, Mass.

TOOLS, THREADING.

(See "Dies," "Plates, Screw," "Stocks," and "Taps.")

TOOLS, TINNERS'.

Buffum Tool Co., Louisiana, Mo.
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Dreis & Krump Mfg. Co., Chicago, Ill.
Heartley Machine, Variety Iron & Tool Works, Toledo, O.
Niagara Machine & Tool Works, Buffalo, N. Y.
Peck, Stow & Wilcox Co., Southington, Conn.
Plomb Tool Mfg. Co., Los Angeles, Cal.

TOOLS, TRUING, GRINDING WHEEL.

(See also "Dressers.")

Precision—The Precision Truing Machine & Tool Co., Cincinnati, O.

TOOLS, TURPENTINE.

White, L. & I. J., Co., Buffalo, N. Y.

TOOLS, TURRET HEAD.

(See "Holders, Tool.")

TOOLS, VALVE RESEATING.

(See also "Machines, Valve Grinding" and "Reseating Tools")

Black & Decker Mfg. Co., The, Towson, Md.
Draper Mfg. Co., The, Port Huron, Mich. "Draper."
Furness Bros. Company, Chicago, Ill. (for pump valves).
Skinner—M. B. Skinner Co., Chicago, Ill.
Valve Seating Tool Co., The, Southport, Conn.
Zoerman-Clark Mfg. Co., Chicago. "Badger."

TOOLS, WAGONMAKERS'.

Cincinnati Tool Co., Cincinnati, O.
Heartley Machine Variety Iron & Tool Works, Toledo, O.

TOOLS, WELL DRILLING.

(See also "Drillers, Well.")

American—The American Well Works, Aurora, Ill.
Armstrong Mfg. Co., Waterloo, Iowa.
Beaumont Iron Works Co., Beaumont, Tex. "Beaumont."
Boardman Co., Inc., The Robert, Oil City, Pa.
Johnston Gumbo Buster—American Well & Prospecting Co., Corsicana, Tex.
Keystone Driller Co., Beaver Falls, Pa.
Leidecker Tool Co., Marietta, O.
Oil Well Supply Co., Pittsburgh, Pa.
Sparks Drilling Jar Co., Charleston, W. Va.
Walworth Company, Boston, Mass.

TOOLS, WOOD CARVING.

Buck Bros., Millbury, Mass.

TOOLS, WOOD CARVING, PNEUMATIC.

Dallett—Dallett Co., Philadelphia, Pa.

TOOLS, WOOD TURNING.

Bennett—Bay State Stamping Co., Worcester, Mass
Buck Bros., Millbury, Mass.
Mattison Machine Works, Rockford, Ill.
Williams, J. H., & Co., Buffalo, N. Y.

TOPS, HYDRANT.

American Foundry & Mfg. Co., St. Louis, Mo.
Gray Iron Foundry Co., Reading, Pa.
Sanitary Company of America, Linfield, Pa.

TORCHES, ASPHALT, PATCHING.

Aeroil—Aeroil Burner Co., Inc., Union Hill, N. J.

TORCHES, BLOW.

Aeroil Burner Co., Inc., Union Hill, N. J.
Allen—L. B. Allen Co., Inc., Chicago, Ill.
Always Ready—Schaefer & Beyer, Newark, N. J.
Always Reliable—Otto Bernz Co., Newark, N. J.
American Gas Furnace Co., Elizabeth, N. J.
American—Henry W. Peabody & Co., New York, N. Y.
Anthony Co., The, Long Island City, N. Y.
Baby—McGill Mfg. Co., Valparaiso, Ind.
Barthel—Van Praag Sales Corp., New York, N. Y.
Beach-Russ Co., New York, N. Y.
Buzzer—Charles A. Hones, Inc., Baldwin, Long Island, N. Y.
Cadillac—Clements Mfg. Co., Chicago, Ill.
Chausse Mfg. Co., Detroit, Mich. "Imp."
C. & L.—Clayton & Lambert Mfg. Co., Detroit, Mich.
Combustion Engineering Corp., New York, N. Y. Quinn."
Detroit—Detroit Torch & Mfg. Co., Detroit, Mich.
Dreadnaught—P. Wall Mfg. Supply Co., Pittsburgh
Everhot—Everhot Mfg. Co., Maywood, Ill.
Fee Nix—Decker Mfg. Co., Newark, N. J. (pumpless)
Fitts, Frank E., Mfg. & Supply Co., Boston, Mass. "Imp."
Flameblast—The North American Mfg. Co., Cleveland, O.
Flora B., Flora L.—A. E. Lovett Co., East Orange, N. J.
Garrison-Heiland Corp., New York, N. Y. (Trade names—Climax, Beekman, Hot-Test.)
Hauck Mfg. Co., Brooklyn, N. Y.
Huffman Mfg. Co., The, Dayton, O. "Huffman Giant Blast," "Huffman Stediblast."
Hunt-Lasher Co., Inc., Boston, Mass. (Trade names—Selfblo, Simplex, Duplex.)
Imp—The Carleton Company, Cambridge, Mass.
Improved Appliance Co., Brooklyn, N. Y.
Jiffy—Apex Stamping Co., Riverdale, Ill.
Karas Solder—Karas Electric Co., Chicago, Ill
Max Sievert—Scandinavian Western Importing Co., Ltd., New York, N. Y.
McLeod Co., The, Cincinnati, O.
Milburn, Alexander, Co., The, Baltimore, Md.
New Allen—L. B. Allen Co., Inc., Chicago, Ill.
Prest-O-Lite—The Prest-O-Lite Co., Inc., Indianapolis, Ind.
Pumpless Blow Torch Co., Pittsburgh, Pa.
Quick Meal Stove Co., Division, American Stove Co., St. Louis, Mo. "Vesuvius."
Ridgely Trimmer Co., Springfield, Ohio. "Neverclog."
R. & R.—The Ransom & Randolph Co., Toledo, O.
Rueckert, C., & Co., Chicago, Ill.
Selas—The Selas Co., Philadelphia, Pa.
Sun Vapor Street Light Co., Canton, O.
Tinol—American Solder & Flux Co., Philadelphia, Pa.
Torrid—Geo. W. Diener Mfg. Co., Chicago, Ill.
Turner Brass Works, The, Sycamore, Ill. (Trade names—Hot Blast, Double Jet.)
Walter's—The Quadriga Mfg. Co., Chicago, Ill.

TORCHES, CUTTING AND WELDING.

Admiral—Admiral Welding Mach. Co., Kansas City, Mo.
Bishop & Babcock Co., The, Cleveland, O.
Brooks Machine Co., Wichita, Kans.
Carbic Manufacturing Company, Duluth, Minn.
Ellipsograph—The Shawver Co., Springfield, O.
Eveready—Oxweld Acetylene Co., New York, N. Y.
Federal Brass Works, Chicago, Ill.
Imperial Brass Mfg. Co., Chicago, Ill.
Improved Appliance Co., Brooklyn, N. Y.
Macleod Co., The, Cincinnati, O. "Buckeye."
Mahrvel—Mahr Mfg. Co., Minneapolis, Minn.
Meco—Modern Engineering Co., St. Louis, Mo.
Milburn, Alexander, Co., The, Baltimore, Md.
Nebulyte—The Anthony Co., Long Island City, N. Y.
Old Reliable—The Turner Brass Works, Sycamore, Ill.
Oxweld Acetylene Co., New York, N. Y.
Purox Company, Denver, Colo.
Rego—The Bastian-Blessing Co., Chicago, Ill.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld, Staylit, Neverflash—Torchweld Equipment Co., Chicago, Ill.
Torrid—Geo. W. Diener Mfg. Co., Chicago, Ill.
Weldcraft Equipment Co., Pittsburgh, Pa.
Weldit—Weldit Acetylene Co., Detroit, Mich.

TORCHES, DECARBONIZING.

Bishop & Babcock Co., The, Cleveland, O.
Federal Brass Works, Chicago, Ill.
Meco—Modern Engineering Co., St. Louis, Mo.
Milburn, Alexander, Co., The, Baltimore, Md.
Rego—The Bastian-Blessing Co., Chicago, Ill.
Smith Welding Equipment Corp., Minneapolis, Minn.
Torchweld Equipment Co., Chicago, Ill. "Torchweld."
Weldit—Weldit Acetylene Co., Detroit, Mich.

TORCHES, ELECTRIC.

Torrid—Geo. W. Diener Mfg. Co., Chicago, Ill.

TORCHES, ENGINEERS', MACHINISTS', FOUNDRY, ETC.

Anthony Co., The, Long Island City, N. Y. (gas and oil.)
Chausse Mfg. Co., Detroit, Mich. "Bruno, Jr."
Dayton Malleable Iron Co., Dayton, O.
Dreadnaught—P. Wall Mfg. Supply Co., Pittsburgh, Pa.

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Eagle Mfg. Co., Wellsburg, W. Va. "Eagle"
Gem Mfg. Co., Pittsburgh, Pa. "Gem."
Johnson Mfg. Co., The, Urbana, O.
Knapp Mfg. & Supply Co., The, New York, N. Y.
Malleable Iron Fittings Co, Branford, Conn.
Mahrvel—Mahr Mfg. Co., Minneapolis, Minn.
Milburn, Alexander, Co., The, Baltimore, Md.
Noera Mfg. Co., Waterbury, Conn.
Obermayer, S., Co., The, Cincinnati, Ohio.
Perfection—Handlan-Buck Mfg. Co., St. Louis, Mo.
Scott, C. U., & Son, Rock Island, Ill. "Scott."
Walters—Walters Mfg. Co., Pittsburgh, Pa.

TORCHES, GAS.

Anthony Co., The, Long Island City, N. Y.
Always Ready—Schaeffer & Beyer, Newark, N. J.
Buzzer—Chas. A. Hones, Inc., Baldwin, Long Island, N. Y.
Improved Appliance Co., Brooklyn, N. Y.
Johnson Gas Appliance Co., Cedar Rapids, Iowa. "Johnson."
Milburn, Alexander, Co., The, Baltimore, Md.

TORCHES, HEATING, PORTABLE.

Aeroil—Aeroil Burner Co., Inc., Union Hill, N. J.
Milburn, Alexander, Co., The, Baltimore, Md.
Vulcan-B—Chausse Mfg. Co., Detroit, Mich.
Smith Welding Equipment Corp., Minneapolis, Minn.

TORCHES, ICE MELTING, RAILWAY SWITCH.

Chausse Mfg. Co., Detroit, Mich. "Vulcan B."
Hauck Mfg. Co., Brooklyn, N. Y.

TORCHES, LABORATORY.

Bernz, Otto, Co., Newark, N. J.
Buzzer—Charles A. Hones, Inc., Baldwin, Long Island, N. Y.
Clayton & Lambert Mfg. Co., Detroit, Mich.
Improved Appliance Co., Brooklyn, N. Y.
Johnson—Johnson Gas Appliance Co., Cedar Rapids, Iowa.

TORCHES, SOLDERING.

(See also "Torches, Blow," and "Furnaces, Soldering").
Buzzer—Charles A. Hones, Inc., Baldwin, Long Island, N. Y.
Always Reliable—Otto Bernz Co., Inc., Newark, N. J.
Clayton & Lambert Mfg. Co., Detroit, Mich.
Johnson—Johnson Gas Appliance Co., Cedar Rapids, Iowa.
Justrite Mfg. Co., Chicago, Ill.
Karas Soldering—Karas Electric Co., Chicago, Ill.
Rego—The Bastian-Blessing Co., Chicago, Ill.
Solderall Co., Newark, N. J. (Self-acting.) "Solderall."
Staysalite—Mathias Klein & Sons, Chicago, Ill. (linemen's).

TORCHES, THAWING AND HEATING.

Aeroil—Aeroil Burner Co., Union Hill, N. J.

TRACK SYSTEMS, OVERHEAD.

Chisholm-Moore Mfg. Co., The, Cleveland, O.
Richards-Wilcox Mfg. Co., Aurora, Ill.

TRAILERS, FLAT OR WITH DUMP BODIES.

Chase Foundry & Mfg. Co., The, Columbus, O.

TRAILERS FOR GASOLINE OR ELECTRIC INDUSTRIAL TRACTORS.

Alvey Mfg. Co., St. Louis, Mo.
Biehl Iron Works, Inc., The, Reading, Pa.
Brute—Sharon Pressed Steel Co., Sharon, Pa.
Chase Foundry & Mfg. Co., The, Columbus, O.
Electric—Electric Wheel Co., Quincy, Ill.
Equipment Mfg. Co., Cleveland, O.
Howe Chain Co., Muskegon, Mich.
Lakewood Engineering Co., Cleveland, O.
Lawson—Menasha Wood Split Pulley Co., Menasha, Wis.
Yale & Towne Mfg. Co., Stamford, Conn. "Yale."
Zering H., Mfg. Co., Cincinnati, O.

TRAINAGRAPHS.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.

TRAMMELS.

Brown & Sharpe Mfg. Co., Providence, R. I.
Goodell-Pratt Co., Greenfield, Mass.
Starrett, The L. S., Co., Athol, Mass.
Union Tool Co., Orange, Mass.

TRAMWAYS, OVERHEAD AND AERIAL.

(See also "Cableways" and "Trolleys.")

American Steel & Wire Co., Chicago, Ill.
Broderick & Bascom Rope Co., St. Louis, Mo.
Brown Hoisting Machinery Co., The, Cleveland, O.
Cleveland Crane & Engineering Co., Wickliffe, O.
Link-Belt Company, Chicago and Philadelphia.

TRANSMISSIONS, RIGHT ANGLE.

Almond—T. R. Almond Mfg. Co., Ashburnham, Mass.
Bartlett, G. M., Indianapolis, Ind.
Brown, A. & F., Co., The, Elizabethport, N. J.
Dodge American System—Dodge Mfg. Corp., Mishawaka, Ind.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Link-Belt Company, Chicago and Philadelphia.
Palmer-Bee Co., Detroit, Mich.
Rockwood Mfg. Co., The, Indianapolis, Ind.
Weller Mfg. Co., Chicago, Ill.
Wood, T. B., Sons Co., Chambersburg, Pa.

TRANSMISSIONS, SPEED REDUCING.

(See "Gears, Speed Reduction Units")

TRANSMISSIONS, VARIABLE SPEED.

Columbia Vari-Speed Co., Chicago, Ill.
Driscoll Transmission Corp., New York, N. Y.
"Evans"—Evans Friction Cone Co., Newton Centre, Mass
Hunter—Hunter Machine Co., James, North Adams, Mass.
Lewellen—Lewellen Mfg. Co., Columbus, Ind.
Lawson—Menasha Wood Split Pulley Co., Menasha, Wis.
Moore & White Co., The, Philadelphia, Pa.
Oilgear Co., Milwaukee, Wis.
The Reeves—Reeves Pulley Co., Columbus, Ind.
Weller Mfg Co. Chicago, Ill.

TRAPS, AIR.

Anderson, V. D., Co., The, Cleveland, O. (for water mains.)
Armstrong—Armstrong Machine Works, Three Rivers, Mich.
Fisher Governor Co., Marshalltown, Iowa.
Gorton—Gorton & Lidgerwood Co., New York, N. Y. (for water mains).
McAlear Mfg. Co., Chicago, Ill.
McAuley Automatic Trap Co., The, Pittsburgh, Pa.
Mueller Steam Specialty Co., Inc., New York, N. Y.
Rochester—Rochester Vacuum Valve Co., Rochester, N. Y.
Swartwout—The Swartwout Co., Cleveland, O.
Wright-Austin Co., Detroit, Mich. (Trade names—Emergency, Wright-Austin).

TRAPS AND VALVES, BACK WATER.

Acme—Sanitas Mfg. Co., Boston, Mass.
American Pin Co., Waterbury, Conn. (Trade names—Sure Seal, Wonder.)
Barrett—James Barrett Mfg. Co., Boston, Mass.
Boston Brass Co., Waltham, Mass. (Trade names—Acme, B. B.)
Blake Specialty Co., Rock Island, Ill. (Trade names Blake, Blasco, Palmer Type, Rock Island, Victory.)
Boosey—Greenwood Mfg. Co., Detroit, Mich.
Butler, Thos. F., Lorain, O.
Casey-Hedges Co., The, Chattanooga, Tenn.
Clean Sweep—Detroit Sanitary Supply Co., Detroit, Mich.
Coffin Valve Co., Boston, Mass.
Concord Foundry & Machine Co., Concord, N. H.
Conrad Foundry Co., Elizabeth, N. J.
Cudell, F. E., Cleveland, O.
Crane Co., Chicago, Ill.

Dale—Standard Brass & Iron Works, Milwaukee, Wis.
Donovan, John J., Boston, Mass. "Eclipse."
Exeter Brass Works, Exeter, N. H.
Glenn Mfg. Co., St. Charles, Ill.
Guilderland Foundry Co., Guilderland, N. Y.
Gulf States Pipe Corp., Anniston, Ala.
Illinois Malleable Iron Co., Chicago, Ill.
Kennedy Valve Mfg. Co., Elmira, N. Y.
Mac—A. E. MacDonald, Worcester, Mass.
Marsh—Builders Specialty Co., Chicago, Ill.
Martin, Fort Wayne, Ind.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Mott, J. L., Iron Works, Trenton, N. J.
Murphy Specialty Co., Milwaukee, Wis.
Palmer—American Foundry & Mfg. Co., St. Louis, Mo.
Palmer—A. L. Swett Iron Works, Medina, N. Y.
Peck Bros. & Co., New Haven, Conn.
Pennie—The Kennedy Valve Mfg. Co., Elmira, N. Y.
Powell Brass Mfg. Co., Grand Rapids, Mich.
Prier Brass Mfg. Co., Kansas City, Mo.
Reading Foundry & Supply Co., Reading, Pa.
Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Salem Brass & Iron Mfg. Co., Bridgeton, N. J.
Sanitary Company of America, Linfield, Pa.
Sanos—Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Wade Iron Sanitary Mfg. Co., Chicago, Ill.
Washington Metal Products Co., The, Washington C. H., Ohio.
Webco—F. W. Webb Mfg. Co., Boston, Mass.
Wizard Mfg. Co., Chicago, Ill.
Wolff Mfg. Corp., Chicago, Ill.
Zurn, J. A., Mfg. Co., Erie, Pa. (Trade names—Erie, Palmer.)

TRAPS, BAG, BRASS.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Ampinco—American Pin Co., Waterbury, Conn.
Frost Mfg. Co., Kenosha, Wis.
Street & Kent Mfg. Co., Chicago, Ill.
Zurn, J. A., Mfg. Co., Erie, Pa. "Sentinel."

TRAPS, BASIN OR LAVATORY.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Albrass Co., Inc., Coxsackie, N. Y.
American Foundry & Mfg. Co., St. Louis, Mo. (Trade names—Airo, Anti-Siphon, Royal, Universal.)
American Brass Novelty Co., Grand Haven, Mich.
American Brass & Copper Co., The, New York, N. Y.
American Sanitary Mfg. Co., Abingdon, Ill. (cast and bent tube.)
American Pin Co., Waterbury, Conn.
B. B.—Boston Brass Co., Waltham, Mass.
Clarke, Robt., Inc., Brooklyn, N. Y.
Clean Sweep—Detroit Sanitary Supply Co., Detroit.
Clow, James B., & Sons, Chicago, Ill.
Cochrane, J. A., Brass Mfg. Co., Cleveland, O. (tubular).
Columbus Brass Co., The, Columbus, O. (Trade names—Brasco, Delany.)
Coyne & Delany Co., Brooklyn, N. Y.
Cudell, F. E., Cleveland, O. (lead).
Dearborn Brass Co., Cedar Rapids, Ia.
Edwardsville Brass Co., Edwardsville, Ill.
Elgin Brass Co., New York, N. Y.
Exeter Brass Works, Exeter, N. H.
Federal Brass Mfg. Co., Cleveland, O.
Federal-Huber Co., Chicago, Ill. (Trade names—Protecto, Scouro, Universal.)
Fee & Mason Mfg. Co., New York, N. Y.
Femco—Frost Mfg. Co., The, Kenosha, Wis.
Fries & Co., Buffalo, N. Y.
Greenwood Mfg. Co., Detroit, Mich.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Haydenville Co., The, Haydenville, Mass.
Hoffmann, B., Mfg. Co., Milwaukee, Wis.
Humphryes Mfg. Co., The, Mansfield, O.
Hydric—The Hydraulic Specialty Co., Philadelphia, Pa.
I. & M.—The Ireland & Matthews Mfg. Co., Detroit, Mich.
Keeney Mfg. Co., The Newington, Conn.
Kretschmer Mfg. Co., Dubuque, Ia.
Little, M. S., Mfg. Co., Hartford, Conn.
Loyal Brass Co., Cleveland, O.
Lukomski Brothers Co., Detroit, Mich.
Marvel—Detroit Marvel Brass Mfg. Co., Detroit, Mich.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Modern Iron Works, Quincy, Ill.
Mott, J. L., Iron Works, Trenton, N. J. (Trade names—Economic, Half S. Sanitas, Sanito.)
Mueller Co., Decatur, Ill.
Murdock Mfg. & Supply Co., The, Cincinnati, O.
Newton—Providence Steam Trap Co., Providence, R. I.
Peck Bros & Co., New Haven, Conn.
Penn—East Penn Foundry Co., Macungie, Pa.
Perkes Co., Charles, Philadelphia, Pa.
Prier Brass Mfg. Co., Kansas City, Mo.
Rundle Mfg. Co., Milwaukee, Wis.
Salem Brass & Iron Mfg. Co., Bridgeton, N. J.
Sanitary Co. of America, The, Linfield, Pa.
Sanitas Mfg. Co., Boston, Mass.
Sanos—Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Savill's, Thomas, Sons, Philadelphia, Pa.
Schild Specialty Co., Cleveland, O.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Standard Brass Mfg. Co., Utica, N. Y.
Union Metal Works, Chelsea, Mass.
Wise, J. B., Inc., Watertown, N. Y.
Wolff Mfg. Corp., Chicago, Ill.
Zurn, J. A., Mfg. Co., Erie, Pa. "Sentinel."

TRAPS, BATH.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American Brass Novelty Co., Grand Haven, Mich.
American Foundry & Mfg. Co., St. Louis, Mo.
American Sanitary Mfg. Co., Abingdon, Ill.
American Pin Co., Waterbury, Conn.
Boosey's—Greenwood Mfg. Co., Detroit, Mich.
Clarke, Robert, Inc., Brooklyn, N. Y.
Clow, James B., & Sons, Chicago, Ill.
Columbia—The John Douglas Co., Cincinnati, O.
Cudell, F. E., Cleveland, O. (lead).
Dearborn Brass Co., Cedar Rapids, Iowa.
Detroit Sanitary Supply Co., Detroit, Mich. (Trade names—Clean Sweep, Desanco.)
Donovan, John J., Boston, Mass. "Donovan Canister."
Edwardsville Brass Works, Edwardsville, Ill
Exeter Brass Works, Exeter, N. H.
Federal Brass Mfg. Co., The, Cleveland, O.
Gilbert, A., & Sons, Brass Foundry Co., St. Louis, Mo.
H. C. N.—Horace C. Nichols Co., Boston, Mass.
Hajoca—Haines, Jones & Cadbury Co., Inc., Philadelphia, Pa.
Haydenville Co., The, Haydenville, Mass.
Humphryes Mfg. Co., The, Mansfield, O.
Imperial—Street & Kent Mfg. Co., Chicago, Ill.
I & M.—The Ireland & Matthews Mfg. Co., Detroit, Mich.
Johns-Manville Corporation, New York, N. Y.
Jumbo Heater & Mfg. Co., Cleveland, O.
Keystone Brass Works, Inc., Erie, Pa.
Kitson Co., Philadelphia, Pa.
Kretschmer Mfg. Co., Dubuque, Ia.
Little, M. S., Mfg. Co., The, Hartford, Conn.
Lukomski Brothers Co., Detroit, Mich.
Marvel—Detroit Marvel Brass Mfg. Co., Detroit, Mich.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
McShane Bell Foundry Co., Baltimore, Md.
Mott, J. L., Iron Works, Trenton, N. J.
Ross & Gade Co., Inc., New York.
Salem Brass & Iron Mfg. Co., Bridgeton, N. J. (brass).
Sanitary Co. of America, The, Linfield, Pa.
Savill's, Thomas, Sons, Philadelphia, Pa.
Scouro—Federal-Huber Co., Chicago, Ill.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Sieben—Prier Brass Mfg. Co., Kansas City, Mo.
Standard Brass Casting Co., Oakland, Calif.
Tangential Inlet—American Foundry & Mfg. Co., St. Louis, Mo.
United Brass Mfg. Co., Cleveland, O.
Wise, J. B., Inc., Watertown, N. Y.
Wolverine Foundry Co., Detroit, Mich.
Woodward-Wanger Co., Philadelphia, Pa.
Young, Jos. H., Co., Boston, Mass. (Trade names—Crawford, J. H. Y.)

TRAPS, BELL.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
Barber Mfg. Co., The, Ashtabula, O.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
Eclipse—John C. Kupferle Foundry Co., St. Louis, Mo.
Edwardsville Brass Works, Edwardsville, Ill.
Exeter Brass Works, Exeter, N. H.
Fee & Mason Mfg. Co., New York, N. Y.
Glenn Mfg. Co., St. Charles, Ill.
Hammond Iron Corp., Birmingham, Ala.
Jones Hollow Ware Co., Baltimore, Md.
Prier Brass Mfg. Co., Kansas City, Mo.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Rundle Mfg. Co., Milwaukee, Wis.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Sutton—Indiana Foundry Co., Indiana, Pa.

TRAPS, BOTTLE.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
Modern Iron Works, Quincy, Ill.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.

TRAPS, DRUM.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Alabama Pipe Co., Anniston, Ala.
Albrass Co., Inc., Coxsackie, N. Y.
American Foundry & Mfg. Co., St. Louis, Mo.
Atchison Specialty Mfg. Co., Atchison, Kans. "Asco."
Baker Lead Mfg. Co., Worcester, Mass.
B. B.—Boston Brass Co., Waltham, Mass.
Bignall Co., The, Medina, N. Y.
Blake Specialty Co., Rock Island, Ill.
Blatchford, E. W., & Co., Chicago, Ill.
Boosey's, Boston Deep Seal—Greenwood Mfg. Co., Detroit, Mich.
Bunker Hill Brand—Northwest Lead Co., Seattle, Wash.
Chicago Pipe Co., Chicago, Ill.
Clarke, Robert, Inc. Brooklyn, N. Y.
Clarksville Foundry & Machine Works, Clarksville, Tenn.
Crane Co., Chicago, Ill.
Cudell, F. E., Cleveland, O.
Dearborn Brass Co., Cedar Rapids, Ia.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Eagle-Picher Lead Co., Cincinnati, O. (lead).
Glenn Mfg. Co., St. Charles, Ill.
Guilderland Foundry Co., Guilderland, N. Y.
Gulf States Pipe Corp. Anniston, Ala.
Hammond Iron Corp., Birmingham, Ala.
Hawks—Hugo Mfg. Co., West Duluth, Minn.
Illinois Malleable Iron Co., Chicago, Ill.
Josam Mfg. Co., Michigan City, Ind.
Jumbo Heater & Mfg. Co., Cleveland, O.
Lukomski Brothers Co., Detroit, Mich.
Lynn—Central Foundry Co., New York, N. Y.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Milwaukee Flush Valve Co., Milwaukee, Wis.
Modern Iron Works, Quincy, Ill.
Prier Brass Mfg. Co., Kansas City, Mo.
Q-S Sanitary Mfg. Co., Waterloo, Iowa.
Raymond Lead Co., Chicago, Ill.
Republic—Stringer Bros., Co., Chicago, Ill.
Richmond Foundry & Mfg. Co., Richmond, Va.
Riverside Foundry & Galvanizing Co., Kalamazoo, Mich.
Robertson, James, Lead Co., Baltimore, Md.
Rundle Mfg. Co., Milwaukee, Wis.
Sanitary Co. of America, The, Linfield, Pa.
Seattle Brass Co., Seattle, Wash.
Selby—American Smelting & Refining Co., San Francisco, Cal.
Stringer—Stringer Bros. Co., Chicago, Ill.
Union Metal Works, Chelsea, Mass.
United Lead Co., New York, N. Y.
Wade Iron Sanitary Mfg. Co., Chicago, Ill.
Walworth Company, Boston, Mass.
Washington Metal Products Co., Inc., Washington C. H., Ohio.
Wolff Mfg. Corp., Chicago, Ill.
Wolverine Foundry Co., Detroit, Mich.

TRAPS AND DRAINS, GARAGE.

Brayman Drain Co., New York, N. Y.
Blake Specialty Co., Rock Island, Ill.
Boosey—Greenwood Mfg. Co., Detroit, Mich.
Dehn's Acme, Peerless—Compound Injector & Specialty Co., Chicago, Ill.
Donovan—Sanitas Mfg. Co., Boston, Mass.
Eastern Foundry Co., Boyertown, Pa.
Eclipse—Kupferle, John C., Foundry Co., St. Louis, Mo.
Glenn Mfg. Co., St. Charles, Ill.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Hercules Foundries, Inc., Los Angeles, Cal.
Josam Mfg. Co., Michigan City, Ind.
Lynn—Central Foundry Co., New York, N. Y.
Marsh—S. L. Marsh Co., Los Angeles, Cal.
Reading Foundry & Supply Co., Reading, Pa.
Richmond Foundry & Mfg. Co., Richmond, Va.
Sanitary Co. of America, The, Linfield, Pa.
South Bend Foundry Co., South Bend, Ind.
Wade Iron Sanitary Mfg. Co., Chicago, Ill.

TRAPS, GASOLINE.

Fisher Governor Co., Marshalltown, Iowa.
McAlear Mfg. Co., The, Chicago, Ill.
Strong, Carlisle & Hammond Co., The, Cleveland, O.
Swartwout—The Swartwout Co., Cleveland, O.
Victor—Wright-Austin Co., Detroit, Mich.

TRAPS, GREASE.

American Foundry & Mfg. Co., St. Louis, Mo.
Armstrong—Armstrong Machine Works, Three Rivers, Mich.
Boylston Steam Specialty Co., Chicago, Ill.
Casey-Hedges Co., The, Chattanooga, Tenn.
Donovan, John J., Boston, Mass. "Donovan Gree-Stop."
Estabrook's, R., Sons, South Boston, Mass.
Excelsior—McGurrin Supply Co., Grand Rapids, Mich.
Fisher Governor Co., The, Marshalltown, Iowa.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Kieley & Muller, New York, N. Y.
Klipfel Mfg. Co., Chicago, Ill.
McAlear Mfg. Co., The, Chicago, Ill.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Marsh—S. L. Marsh Co., Los Angeles, Cal.
Milwaukee Steam Appliance Co., West Allis, Wis. "Peters."
Mott, J. L., Iron Works, Trenton, N. J. "Tucker."
Pittsburgh Engineering Co., Jeannette, Pa. "Peco."
Rundle Mfg. Co., Milwaukee, Wis.
Rundle-Spence Mfg. Co., Milwaukee, Wis.
Rural Septic Systems Co., Indianapolis, Ind.
Sanitary Appliance Co., Inc., Houston, Tex.
Webb, F. W., Mfg. Co., Boston, Mass. "Webbco"
Whirlpool—Bell Grease Trap Co., Philadelphia, Pa.
Wolff Mfg. Corp., Chicago, Ill.
Wright-Austin Co., Detroit, Mich. "Victor."

TRAPS, HOPPER.

American Foundry & Mfg. Co., St. Louis, Mo.
Compound Injector & Specialty Co, Chicago, Ill. "Dehn's Acme."
Gulf States Pipe Corp., Anniston, Ala.
Haines, Jones & Cadbury Co., Philadelphia, Pa. "Hajoca."
I. X. L. Pump & Mfg. Co., Philadelphia, Pa.
Jones Hollow Ware Co., Baltimore, Md.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Union Sanitary Works, Noblesville, Ind.

TRAPS, HYDRANT.

American Foundry & Mfg. Co., St. Louis, Mo.
Glenn Mfg. Co., St. Charles, Ill.
Wheeling Sanitary Mfg. Co., Wheeling, W. Va

TRAPS, LEAD.

American Lead Co., Pittsburgh, Pa.
American Smelters Securities Co., San Francisco, Cal.
Baker Lead Mfg. Co., Worcester, Mass.
Blatchford, E. W., Co., Chicago, Ill.
B. B.—Boston Brass Co., Waltham, Mass.
Chadwick-Boston Lead Co., Boston, Mass.
Clarke, Robert, Inc., Brooklyn, N. Y.
Clean Sweep—Detroit Sanitary Supply Co., Detroit, Mich.
Cudell, F. E., Cleveland, O.
Eagle-Picher Lead Co., Cincinnati, O.
Gardiner Metal Co., Chicago, Ill.
Lissberger, Marks & Son, Inc., Long Island City, N. Y.
Lukomski Brothers Co., Detroit, Mich.
National Lead Co., New York, N. Y.
Newton—Providence Steam Trap Co., Providence, R. I.
North American Copper Co., New York, N. Y.
Northwest Lead Co., Seattle, Wash. "Bunker Hill Brand."
Robertson Lead Co., James, Baltimore, Md.
Rochester Lead Works, Rochester, N. Y.
Ulco—Raymond Lead Co., Chicago, Ill.
Union Metal Works, Chelsea, Mass.
United Lead Co., New York, N. Y.
Wensley Metal Products Co., Denver, Colo.
Windsor Mfg. Co., Milwaukee, Wis.

TRAPS, OIL.

Armstrong—Armstrong Machine Works, Three Rivers, Mich.
Bousman—The Bousman Mfg. Co., Grand Rapids, Mich.
K. & T.—Klipfel Mfg. Co., Chicago, Ill.
Kieley & Muller, New York, N. Y. "Kielmul."
McAlear Mfg. Co., The, Chicago, Ill.
Strong, Carlisle & Hammond Co., The, Cleveland, O.
Victor—Wright-Austin Co., Detroit, Mich.

TRAPS, PUMPING.

Bundy—Bundy Steam Trap Co., Nashua, N. H.
McAlear Mfg. Co., The, Chicago, Ill.
Sterling—The Templeton Mfg. Co., Hyde Park, Mass.

TRAPS, RADIATOR.

American District Steam Co., North Tonawanda, N. Y.
Armstrong—Armstrong Machine Works, Three Rivers, Mich.
Bishop & Babcock Co., The, Cleveland, O.
Dunham—C. A. Dunham Co., Inc., Chicago, Ill.
Hutchison Vapor Heating Co., Washington, D. C.
Illinois Engineering Co., Chicago, Ill.
I. S. C.—Ideal Specialty Co., Helena, Mont.
Johns-Manville Corporation, New York, N. Y.
Marsh, Jas. P. & Co., Chicago, Ill.
McAlear Perfection—McAlear Mfg. Co., Chicago, Ill.
O E—O E Specialty Mfg. Co., Milwaukee, Wis.

Sarco Co., Inc., New York, N. Y.
Stay Right—Ideal Heating Equipment Co., Cleveland, O.
Sterling Engineering Co., Milwaukee, Wis. (Trade names—Sterlco, Sterling.)
Strong—Strong, Carlisle & Hammond Co., Cleveland, O.
Thermoflex—W. D. Cashin, Boston, Mass.
Trane Thermetal—The Trane Co., LaCrosse, Wis.
Warren Webster & Co., Camden, N. J. "Webster."

TRAPS AND DRAINS, REFRIGERATOR.

Advance—J A. Zurn Mfg. Co., Erie, Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
Atchison Specialty Mfg. Co., Atchison, Kans. "Asco."
Badger—Modern Iron Works, Quincy, Ill.
Bignall Co., The, Medina, N. Y.
Blake Specialty Co., Rock Island, Ill.
Boosey's—Greenwood Mfg. Co., Detroit, Mich.
Casey-Hedges Co., Chattanooga, Tenn.
Central Brass Mfg. Co., The, Cleveland, O.
Chicago Pipe Co., Chicago, Ill.
Dallas Brass & Copper Co., Chicago, Ill.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
East Penn. Foundry Co., Macungie, Pa.
Eclipse—Kupferle, John C., Foundry Co., St. Louis, Mo.
Enterprise Mfg. Co., West Hoboken, N. J.
Essex Foundry, Newark, N. J.
Federal-Huber Co., Chicago, Ill.
Fee & Mason Mfg. Co., New York, N. Y.
Foster, C. H., Overland, Mo.
Glenn Mfg. Co., St. Charles, Ill.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
H. C. N.—Horace C. Nichols Co., Boston, Mass.
Hawks—Hugo Mfg. Co., West Duluth, Minn.
Josam Mfg. Co., Michigan City, Ind.
Jumbo Heater & Mfg. Co., Cleveland, O.
Kokomo Brass Works, Kokomo, Ind.
Marvel—Detroit Marvel Brass Mfg. Co., Detroit, Mich.
Milford Iron Foundry Co., Milford, Mass.
National—National Brass Works, Inc., Los Angeles, Cal.
Reading Foundry & Supply Co., Reading, Pa.
Richmond Foundry & Mfg. Co., Richmond, Va.
Riverside Foundry & Galvanizing Co., Kalamazoo, Mich.
Sanitary Co. of America, The, Linfield, Pa.
Simplex Boiler Co., Brooklyn, N. Y.
Stringer Bros. Co., Chicago, Ill.
Tri-One—Central Specialty Co., Detroit, Mich.
Vitreous Enameling & Stamping Co., New York, N. Y.
Wade Iron Sanitary Mfg. Co., Chicago, Ill.
Washington Metal Products Co., Inc., Washington C. H., Ohio.
Wolverine Foundry Co., Detroit, Mich.
Worns & Kemp, New York, N. Y.

TRAPS, RUNNING.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Alabama Pipe Co., Anniston, Ala.
Albrass Co., Inc., Coxsackie, N. Y.
American Foundry & Mfg. Co., St. Louis, Mo.
Ampinco—American Pin Co., Waterbury, Conn.
Boston Brass Co., Waltham, Mass.
Blake Specialty Co., Rock Island, Ill.
Bridgeport Brass Co., Bridgeport, Conn.
Central Foundry Co., New York, N. Y.
Cudell, F. E., Cleveland, O.
Crane Co., Chicago, Ill.
Deep Seal—R. Estabrook's Sons, South Boston, Mass.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
Essex Foundry, Newark, N. J.
Femco—Frost Mfg. Co., Kenosha, Wis.
Foster—C. H. Foster, Overland, Mo.
Glenn Mfg. Co., St. Charles, Ill.
Goetz Brass Co., Chicago, Ill.
Grabler Mfg. Co., Cleveland, O.
Greenwood Mfg. Co., Detroit, Mich.
Gulf States Pipe Corp., Anniston, Ala.
Haines, Jones & Cadbury Co., Philadelphia, Pa. "Hajoca."
Little, M. S., Mfg. Co., Hartford, Conn.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Pittsburgh Valve & Fittings Co., Barberton, O.
Sanitary Co. of America, The, Linfield, Pa.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Walworth Company, Boston, Mass.
Zurn, J. A., Mfg. Co., Erie, Pa.

TRAPS, SAND.

Bignall Co., Medina, N. Y.
Blake Specialty Co., Rock Island, Ill.
Dale—Standard Brass & Iron Works, Milwaukee, Wis.
Donovan, John J., Boston, Mass. "Eclipse."
Boosey—Greenwood Mfg. Co., Detroit, Mich.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
Elkhart Iron Works, Elkhart, Ind.
Eureka Mfg. Co., Indianapolis, Ind.
Excello—Cooper Foundry Co., Atchison, Kan.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Illinois Thermo—Illinois Engineering Co., Chicago, Ill.
Johnson, J. D., Co., Inc., Philadelphia, Pa.
Reading Foundry & Supply Co., Reading, Pa.
Richmond Foundry & Mfg. Co., Inc., Richmond, Va.
Saaco—Sanitary Company of America, Linfield, Pa.
Sanitas Mfg. Co., Boston, Mass.
Swett, A. L., Iron Works, Medina, N. Y.
Wade Iron Sanitary Mfg. Co., Chicago, Ill.

TRAP SCREWS.

(See "Screws, Trap.")

TRAPS, SEDIMENT.

Anderson, V. D., Co., The, Cleveland, O.
Michigan Lubricator Co., Detroit, Mich.
Swartwout Company, The, Cleveland, O.

TRAPS, SINK AND LAUNDRY TRAY.

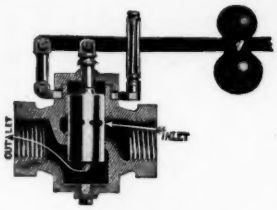
Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Acme Mfg. Co., Bangor, Me.
American Brass Novelty Co., Grand Haven, Mich.
American Foundry & Mfg. Co., St. Louis, Mo.
American Pin Co., The, Waterbury, Conn.
American Sanitary Mfg. Co., Abingdon, Ill.
Barnes Mfg. Co., The, Mansfield, O.
Bignall Co., The, Medina, N. Y.
Blake Specialty Co., Rock Island, Ill.
Concord Foundry & Machine Co., Concord, N. H.
Crawford—F. W. Webb Mfg. Co., Boston, Mass.
Cudell, F. E., Cleveland, O.
Dearborn Brass Co., Cedar Rapids, Ia.
Detroit Brass & Malleable Works, Detroit, Mich.
Diamond—A. Y. McDonald Mfg. Co., Dubuque, Ia.
Essex Foundry, Newark, N. J.
Frost Mfg. Co., Kenosha, Wis.
Glenn Mfg. Co., St. Charles, Ill.
Greenwood Mfg. Co., Detroit, Mich.
Guilderland Foundry Co., Guilderland, N. Y.
H. C. N.—Horace C. Nichols Co., Boston, Mass.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Haydenville Co., The, Haydenville, Mass.
Keeney Mfg. Co., The, Newington, Conn.
Keystone Brass Works, Erie, Pa.
Loyal Brass Co., Cleveland, O.
Lukomski Brothers Co., Detroit, Mich.
Marvel—Detroit Marvel Brass Mfg. Co., Detroit, Mich.
Mott, J. L., Iron Works, The, Trenton, N. J.
Mueller Co., Decatur, Ill.
Protector—Federal-Huber Co., Chicago, Ill.
Reading Foundry & Supply Co., Reading, Pa.
Richmond Foundry & Mfg. Co., Richmond, Va.
Riverside Foundry & Galvanizing Co., Kalamazoo, Mich.
Rundle Mfg. Co., Milwaukee, Wis.
Salem Brass & Iron Mfg. Co., Bridgeton, N. J. (brass).
Sanitary Co. of America, Linfield, Pa.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Street & Kent Mfg. Co., Chicago, Ill.
Swett, A. L., Iron Works, Medina, N. Y.
Wise, J. B., Inc., Watertown, N. Y.
Woodward-Wanger Co., Philadelphia, Pa.
Young, Joseph H., Co., Boston, Mass. (Trade names—Adapt, Beverly, Bay State, Hub, Salem, Springfield, Yco.)
Zurn, J. A., Mfg. Co., Erie, Pa.

TRAPS, SOIL PIPE, ADJUSTABLE.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
Central Foundry Co., New York, N. Y.
Dehn's Acme—Compound Injector & Specialty Co., Chicago, Ill.
Gulf States Pipe Corp., Anniston, Ala.
Stringer Bros. Co., Chicago, Ill.
Weiskittel, A., & Son Co., Baltimore, Md.

TRAPS, STEAM.

Albany—Albany Steam Trap Co., Albany, N. Y.
American District Steam Co., North Tonawanda, N. Y. "Adsco," "Empire."
American Foundry & Mfg. Co., St. Louis, Mo.
American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Anderson—The V. D. Anderson Co., Cleveland, Ohio.
Armstrong Machine Works, Three Rivers, Mich. "Armstrong."
Bates, Edward P., Syracuse, N. Y. (low pressure). "Bates."

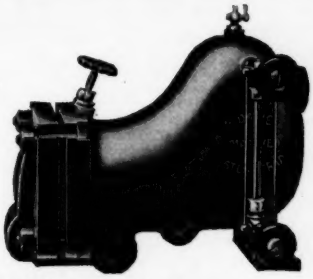


Watson Reducing Valve

with Lever and Weight

for reducing to low pressure steam such as steam heating, steam kettles, cooking tables and coils of pipe.

We manufacture Reducing Valves for all uses —High or Low Pressure Steam and for Water and Air, Pump Governors, Relief Valves, Ejectors.



McDaniel Improved Steam Traps

Are Suitable for Draining

high pressure main lines or low pressure steam heating work. Will discharge the condensation as fast as it accumulates and not allow any steam to blow through and waste.

Watson & McDaniel Co.

140 N. 7th Street **Philadelphia, Pa.**

Bishop & Babcock Co., The, Cleveland, O.
Boylston Steam Specialty Co., Chicago, Ill. "Boylston," "Peerless."
Brown—D. G. C. Trap & Valve Co., New York, N. Y.
Bundy—Bundy Steam Trap Co., Nashua, N. H.
Burrows, F. A., Mfg. Co., York, Pa. "Burrows."
Cookson—**The D. T. Williams Valve Co., Cincinnati.**
"Corlis"—**The Steam Appliance Co., Milwaukee, Wis.**
Corliss Valve—Plant Engineering & Equipment Co., Brooklyn, N. Y.
Crane Co., Chicago, Ill. (Trade names—Cranetilt, Crane Improved Pot.)
Curtis—Julian d'Este Co., Boston, Mass. **(balanced).**
Davis—G. M. Davis Regulator Co., Chicago, Ill.
Detroit—American Blower Co., Detroit, Mich.
Diamond Guarantee—Jenkins Bros., New York, N. Y.
Drying Systems, Inc., Chicago, Ill.
Dunham, C. A., Inc., Chicago, Ill. **"Dunham."**
Eclipse—Illinois Engineering Co., Chicago, Ill.
Elliott—Elliott Co., Jeannette, Pa.
Ellis—The Ellis Drier Co., Chicago, Ill.
Fisher Governor Co., The, Marshalltown, Iowa.
Flinn—B. F. Sturtevant Co., Boston, Mass.
Foskett & Bishop Co., The, New Haven, Conn. "Foskett-Bishop."
Garden City—Garden City Fan Co., Chicago, Ill.
G. F. E.—Grinnell Co., Providence, R. I.
Garratt's McKellar—W. T. Garratt & Co., **San Francisco, Cal.**
Golden-Anderson Valve Specialty Co., Pittsburgh, Pa. "Golden."
Haines Improved—Wm. S. Haines & Co., Philadelphia, Pa.
Hennebohle, F., Co., South Chicago, Ill.
Herbert Boiler Co., The, Chicago, Ill.
Holmberg Steam Trap Co., The, Linsdborg, Kans.
Hornung, J. C., Chicago, Ill.
Hughes Bros., Scranton, Pa.
Hutchison Vapor Heating Corp., Washington, D. C.
Huyette, The Paul B., Co., Inc., Philadelphia, Pa. "Reliance."
Hydromatic—The Swartwout Co., Cleveland, O.
Illinois Engineering Co., Chicago, Ill.
Illinois Malleable Iron Co., Chicago, Ill.
Johns-Manville Corporation, New York, N. Y.
Justus—**Justus Steam Trap Co., Napanoch, N. Y.**
Kieley & Muller, New York, N. Y. "Kielmul."
Kitts—**Kitts Mfg. Co., Oswego, N. Y.**
Komo—**The Linton Machine Co., New York, N. Y.**
K. & M. Steam Engineering Co., West Orange, N. J. "K. & M. Safety."
K. & T.—Klipfel Mfg. Co., Chicago, Ill.
Locke—**Locke Regulator Co., Salem, Mass.**
Lawler's—Lawler Water Feed & Damper Co., Mt. Vernon, N. Y.
Lindstrom's Machine Works, Allentown, Pa.
Lytton Mfg. Corp., Franklin, Va.
McAlear Mfg. Co., The, Chicago, Ill.
McAuley Automatic Trap Co., Pittsburgh, Pa.
McCann's—**Hussey, McCann & Co., New York.**
Milwaukee Steam Appliance Co., West Allis, Wis. "Peters."
Mitchell & Co., Inc., W. K., Philadelphia, Pa.
Monash 20—Monash-Younker Co., Chicago, Ill.
Morehead—Morehead Mfg. Co., Detroit, Mich.
Mott, J. L., Iron Works, The, Trenton, N. J. "Tobey."
Mueller Steam Specialty Co., Inc., New York, N. Y.
Nason Pattern—B. Hoffmann Mfg. Co., Milwaukee, Wis.
Nason, Class B and Class C, Sidelug—Nason Mfg. Co., New York, N. Y.
Nason, Standard—American Foundry & Mfg. Co., St. Louis, Mo.

WRIGHT-AUSTIN

BUCKET TRAPS

Made in eight sizes for all pressures. Large capacity. Special air discharge feature. Fully guaranteed.

Ask for Bulletin 210

WRIGHT-AUSTIN CO.
DETROIT, MICH.

(236)

SARCO STEAM TRAPS

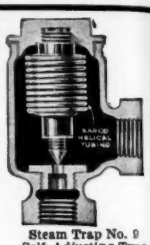
are small compact, simple traps that do the same work as the more cumbersome bucket or float traps and cost about one-third as much.

The NEW SARCO No. 9 is of the balanced-pressure type, factory adjusted and suitable for any pressure varying or constant from 0 to 100 pounds. It has only one moving part. No levers, gauges, packing, stuffing boxes or other unnecessary parts. Nothing to get out of order or require adjustment. Can be placed anywhere in the line, and takes but a few minutes to install.

Write for Steam Trap List No. 22

The SARCO STEAM TRAP No. 7 is as simple in construction and works on the same principle as the No. 9 trap, but is of the adjustable type to control any given steam pressure from 0 to 200 pounds.

Write for Booklet No. 1



Steam Trap No. 9
Self-Adjusting Type

SARCO TEMPERATURE REGULATORS

Operated by an extremely sensitive liquid, SARCO temperature regulators respond instantly to the slightest change in the temperature of atmosphere or liquids. SARCO regulators are entirely self-contained, and self-operated. No electricity, compressed air, water or other outside agencies required. Costs absolutely nothing to operate. No rubber or leather diaphragms or other perishable parts. Costs less than any other dependable control and is cheaper and easier to install. Write for Booklet No. 50.

ALL SARCO PRODUCTS SOLD ON THIRTY DAYS' FREE TRIAL

SARCO COMPANY, INC., 183 Madison Avenue, New York

BOSTON BUFFALO CHICAGO CLEVELAND DETROIT PHILADELPHIA

Nason-Vesuvius—Nason Mfg. Co., New York, N. Y.
National Dry Kiln Co., The, Indianapolis, Ind.
Newton—Providence Steam Trap Co., Providence, R. I.
New Standard—Kieley & Muller, New York, N. Y.
Nicholson—W. H. Nicholson & Co., Wilkes-Barre, Pa.
O. K.—Kitts Steam Specialties Co., Oswego, N. Y.
P. & C.—Reading Steel Casting Co., Bridgeport, Conn.
Paracoil—Davis Engineering Corp., New York, N. Y.
Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
Pittsburgh Valve & Fittings Co., Barberton, O.
Powers—James Bonar & Co., Pittsburgh, Pa.
Providence—Grinnell Company, Providence, R. I.
Reflex, Duplex Water Seal—Jas. P. Marsh & Co., Chicago, Ill.
Reliance—The Reliance Gauge Column Co., Cleveland, O.
Rochester Vacuum Valve Co., Rochester, N. Y.
Sarco—Sarco Co., Inc., New York, N. Y.
Stickle—Open Coil Heater & Purifier Co., Indianapolis
Squires, C. E., Co., The, Cleveland, O. "Squires," "The Genuine."
Standard Nason Pattern—Glenn Mfg. Co., St. Charles, Ill.
Steinmitz—American Safety Lamp & Mine Sup. Co., Scranton, Pa.
Strong's—The Strong, Carlisle & Hammond Co., Cleveland, O.
Sturtevant—B. F. Sturtevant Co., Hyde Park, Mass.
Swartwout—The Swartwout Co., Cleveland, O.
Templeton Bros., Inc., Roslindale, Mass.
Trane Company, The, LaCrosse, Wis.
Tucker, Webco—F. W. Webb Mfg. Co., Boston, Mass.
Turbo—John F. Robertson Co., Pittsburgh, Pa. (bucket type).
Volz Engineering Equipment Co., Long Beach, Cal.
Walworth Company, Boston, Mass.
Wanstall—Pryko, Inc., New York, N. Y.
Watson & McDaniel Co., Philadelphia, Pa. (Trade names—Chapman, Columbia, McDaniel Special, McDaniel Improved)
Williams Gauge Co., The, Pittsburgh, Pa. "Williams."
Winner—The Winner Co., New York, N. Y.
Wright-Austin Co., Detroit, Mich. (Trade names—Emergency, Victor.)
Wyoming—W. H. Nicholson & Co., Wilkesbarre, Pa.

TRAPS, STEAM, EXPANSION.

Watson & McDaniel Co., Philadelphia, Pa. (Trade names—Columbia, McDaniel & McDaniel Improved.)
Walworth Company, Boston, Mass.

TRAPS, STEAM, NON-RETURN.

Albany—Albany Steam Trap Co., Albany, N. Y.
Anderson, V. D., Company, The, Cleveland, O.
Bundy—Bundy Steam Trap Co., Nashua, N. H.
Kieley & Muller, New York, N. Y. "Kielmul."
McAlear Mfg. Co., The, Chicago, Ill.
McDaniel & McDaniel Improved—Watson & McDaniel Co., Philadelphia, Pa.
Ofeldt—Mears-Kane-Ofeldt, Inc., Philadelphia, Pa.
Sarco Co., Inc., New York, N. Y.
Walworth Company, Boston, Mass.
Wright-Austin Co., Detroit, Mich. (Trade names—Victor, Emergency).

TRAPS, STEAM, RETURN.

Ace—The W. B. Connor Co., Inc., New York, N. Y.
Albany—Albany Steam Trap Co., Albany, N. Y.
Bundy—Bundy Steam Trap Co., Nashua, N. H.
Detroit—American Blower Co., Detroit, Mich.
Dunham, C. A., Co., Inc., Chicago, Ill.
Elliott—Elliott Co., Jeannette, Pa.
Illinois—Illinois Engineering Co., Chicago, Ill.
Kieley & Muller, New York, N. Y. "Kieley."
Lytton—Lytton Mfg. Corp., Franklin, Va.
McAlear—McAlear Mfg. Co., Chicago, Ill.
Morehead—Morehead Mfg. Co., Detroit, Mich.
O. E. Specialty Mfg. Co., Milwaukee, Wis.
Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
Sarco Co., Inc., New York, N. Y.
Sterling Engineering Co., Milwaukee, Wis. "Sterling."
Strong—Strong Carlisle & Hammond Co., Cleveland, O.
Templeton Bros., Inc., Roslindale, Mass.
Thermo Syphon—Lytton Mfg. Corp., Franklin, Va.
Thermoflex—W. D. Cashin, Boston, Mass.
Trane Co., The, LaCrosse, Wis.
Wright-Austin Co., Detroit, Mich.

LOOK! HERE IT IS

Lindstrom's Corliss Valve Steam Trap

Equipped with Lindstrom's "Automatic Air Valve" Makes Lindstrom's Steam Trap absolutely automatic, the simplest and most reliable, wastes no steam, valve never leaves the seat. Composed of ONLY SIX PARTS.

Send for Literature and Price

LINDSTROM'S MACHINE WORKS

215-217 South Third Street - - ALLENTOWN, PA.

Established by JOSEPH NASON in 1841

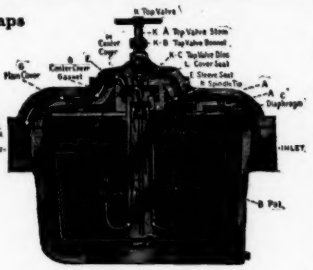
Nason Manufacturing Co.

71 FULTON STREET, New York, N. Y.

Cable Address "UNITORGAN," New York

Nason Steam Traps

Receive and automatically discharge condensation from heating surfaces of every description. Have but one working part, so located as to insure immunity from injury, and a permanent water seal over point of discharge, preventing escape or loss of steam when valve is open. Operation is purposely intermittent, thus prolonging the integrity of seating surfaces.



Class B Trap, 1 to 20 lbs.
Class C Trap, 20 to 70 lbs.
Sidelug Trap, 40 to 150 lbs.

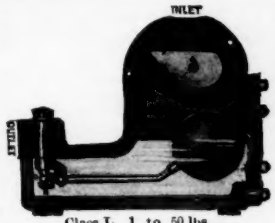
Condensation enters at "Inlet," passes thru opening AA and is diverted into pot B by diaphragm C, where it gradually raises float D, thereby closing discharge valve E. Valve K, the by-pass, being closed, float D is filled by overflowing water, causing it to sink, and removing steam pressure which holds discharge valve E closed. Steam pressure then drives water thru sleeve F (see arrows) thru discharge valve E and passage to "Outlet." The float, now empty, except for a water seal, is thus lightened, rises, and operation repeats.

No	1	2	3	4	5
Pipe Conn., in.	½	¾	1	1¼	1½
Diam. Flange, in.	10¾	14¼	15¾	19	21¾
Diam. Cylinder, in.	8	10½	12	14	18
Ht. over Valve, in.	11	14	16¼	18½	23½
Ht. over Cover, in.	8	10	12	14	16½
Lin. Ft. 1 in. Pipe	1500	3450	5250	7600	12000
Sq. Ft. Surface	500	1150	1750	2550	4000
Discharge, lbs. Water per min	4½	6½	10	15½	23
Wt., Class B and C, lbs.	40	80	113	178	336
Wt., Sidelug, lbs.	47	92	125	212	343
Class B and C, ea.	26.50	56.50	72.50	108.50	211.50
Sidelug, ea	32.00	62.00	78.00	120.00	220.00

Vesuvius Steam Traps

Have regrinding valve ball, insuring life and dependability at low repair cost.

Connection is made at "Inlet," outlet being closed by the ball valve B. The incoming water is received in copper tilting bucket A, so balanced that when filled it tips, instantly precipitating its contents into main body of water. Quick upward impulse imparted to float C, by this discharge, removes ball from its seat, allowing a clear free way for discharge. In closing, float follows receding water level and gradually returns ball toward its seat, until a predetermined level is reached, when pressure picks up the ball and instantly seats it, thus closing orifice, until above described operation is repeated. Under overload discharge is continuous.



Class L, 1 to 50 lbs.
Class M, 50 to 150 lbs.
Class H, 150 to 250 lbs.

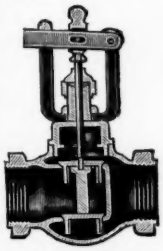
Trap No.	0	1	2	3
Pipe Conn.	¾	1	1¼	1½ & 2
Sq. Ft. Radiation.	1600	2400	3100	4800
Ft. 1 in. Pipe	4800	7200	9400	12900
Lbs. Water per Hr.	560	830	1080	1[illegible]0
Length, in.	16	17	19	23
Width, in.	8	9	11	12
Height, in.	13	14	15	16
Wt., Class L & M	64	93	116	145
Wt., Class H.	82	112	145	177
Each, Class L and M	63.00	78.75	110.50	133.50
Each, Class H.	84.00	105.00	147.50	178.00

High Pressure Radiator

To 125 lbs., 1, 2, 3 and 4 rows wide, 4 to 32 rows long. For marine and pressure plants, 35" standard height: 1 ft. surface per tube. Special heights to order. Three circular patterns 18, 30, 54 tubes. List per Tube 2.00.

Nason Balanced Quick Opening Valves

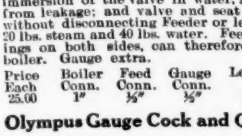
The pioneer of this type for full opening with minimum movement and positive, frictionless operation, with steam, air, gas, water and other fluids in connection with automatic controlling devices, such as forced draft and temperature regulators, feed-water heaters, condensation tanks, hot wells, etc. Of Bevel Disc construction—the upper disc being the larger. Under conditions requiring extended complete closure, valve should be so connected in line that the pressure acts downward on larger seat, thereby holding valve closed. Where necessary to compensate for differential disc areas, counter weight is furnished for lever. Yoke swivels, permitting alignment of lever in any direction. Not affected by internal pressure, and therefore control must be through medium of outside force: either float, cable or diaphragm. For diaphragm operation can be furnished without yoke or lever and with spindle to suit conditions.



Size	½	¾	1	1¼	1½	2	2½	3	3½	4
Brass, Screwed		15.00	18.75	22.50	29.50	51.50	57.00	74.50	102.00	139.00
Iron Body, Screwed							57.00	74.50	102.00	139.00
Iron Body, Flanged						104.75	118.00	129.50	171.25	200.00
Brass, Union End	19.50	20.50	25.75	30.75	33.00	42.25	(2" only is Iron Body)			

Note: Brass Screwed Valves also made in Angle Pattern to 2"

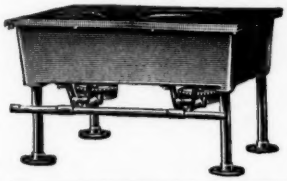
Nason Immersed Valve Feeder



Automatically maintains water level in low pressure steam house heating boilers, affording valuable insurance. Only in this Feeder are immersion of the valve in water, allowing durability and immunity from leakage; and valve and seat removable through one opening, without disconnecting Feeder or lever. For pressures not exceeding 20 lbs. steam and 40 lbs. water. Feeder furnished with threaded openings on both sides, can therefore be installed on either side of boiler. Gauge extra.

Price Each	Boiler Conn.	Feed Conn.	Gauge Conn.	Length	Height	Width	Weight
25.00	1"	½"	½"	23"	11¼"	7⅝"	48 lbs.

Steam & Gas Glue Heaters



The Steam Heater is a substantial iron tank with circulating coil for live or exhaust steam. The Gas Heater is similar but fitted with gas burners.

Stands extra at 5.00

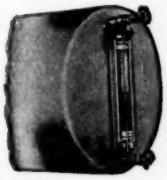
Size	No. 1	No. 2	No. 3
Cover Steam and Gas	12" x 17"	17¾" x 23"	17¾" x 30"
Gas Heater, Height	14"	14"	14"
Steam Heater, Height	8"	9½"	9½"
Sizes and Combinations of pots for which we can supply covers for steam and gas heaters. In ordering do not combine or confuse any two lines in the table.	1—6" 1—7" 1—8" 1—9" 2—5"	4—5" 6—5" 4—6" 1—12" 2—9" 1—10" & 2—5" 1—10" & 2—6" 1—8" & 2—5" 1—8" & 2—6"	8—5" 2—12" 1—10" & 4—6" 1—12" & 4—5" 2—10" & 2—5" 1—14" & 2—6"
Steam Heater, ea.	30.00	48.00	60.00
Gas Heater, ea.	22.50	34.50	43.20
Copper Pots, ea.	5" 7" 6" 4.00 5.50	8" 9" 11.25 12.00	10" 12" 14" 13.50 14.25 16.50 30.00
Capacity, Qts.	1¾ 2½	4½ 6	8 11 16 21

Olympus Gauge Cock and Quick Closing Water Gauge

A high grade weighted type cock to 200 lbs. Valve disc of genuine Babbitt metal in pencil form with slotted head easily and quickly ground to a new seat under pressure, by simply using a screw-driver to revolve pencil. Disc has one inch of wearing length and may be easily and quickly replaced at nominal cost. Body is high grade steam metal, to resist erosion. May be swiveled so spout will not throw hot water on operator. Quick closing chain water gauge to match.

Gauge Cock, ea. ½ or ¾" 6.50 Water Gauge, ea. ½ or ¾" 18.00

All Iron Gauge



Constructed of iron throughout, this gauge was placed on the market many years ago and has enjoyed universal popularity ever since.

For ammonia and chemicals 750 lb. test. Has Automatic Safety Stop, which closes if glass breaks, thus preventing escape of gas.

Pipe Thread	½"	¾"	1"
Size of Glass	¾ x 16"	¾ x 16"	¾ x 16"
Each, Complete.	10.00	12.50	15.00

ANDERSON STEAM SPECIALTIES

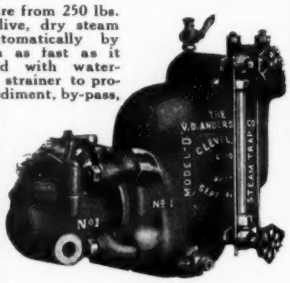
including

Steam Traps — Air Traps
Copper Floats — Blast Traps

Anderson Model "D" Steam Trap

Suitable for any pressure from 250 lbs. to gravity. Delivers live, dry steam continuously and automatically by removing condensation as fast as it accumulates. Equipped with water-sealed valve and float, strainer to protect against scale and sediment, by-pass, gauge glass, and non-collapsible, leak-proof copper float. All parts easily accessible and interchangeable.

Every Anderson Trap tested under hydrostatic as well as steam boiler pressure. State maximum pressure at trap when ordering.



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The V. D. Anderson Company
1935 W. 96th St. Cleveland, O.

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Bishop & Babcock Co., The, Cleveland, O.
Hoffman Specialty Co., Waterbury, Conn.
McAlear Mfg. Co., The, Chicago, Ill.
Marsh, Jas. P., Co., Chicago, Ill.
Sarco Co., Inc., New York, N. Y.
Trane Co., The, La Crosse, Wis.
Vapor Regulator Co., Philadelphia, Pa.

TRAPS, STEAM, WATER SEAL.

Garrett, W. D., & Co., New York, N. Y.
Hoffman Specialty Co., New York, N. Y.
Locke—Locke Regulator Co., Salem, Mass.
McAlear Mfg. Co., The, Chicago, Ill.
Wiley—Simplex Heating Specialty Co., Lynchburg, Va.

TRAPS, URINAL.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
American Sanitary Mfg. Co., Abingdon, Ill.
Ampinco—American Pin Co., Waterbury, Conn.
Boosey—Greenwood Mfg. Co., Detroit, Mich.
Clarke, Robert, Inc., Brooklyn, N. Y.
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Coyne & Delany Co., Brooklyn, N. Y.
Detroit Brass & Malleable Works, Detroit, Mich.
Douglas Co., John, Cincinnati, O.
Edwardsville Brass Works, Edwardsville, Ill.
Exeter Brass Works, Exeter, N. H.
Federal-Huber Co., Chicago, Ill.
Femco—Frost Mfg. Co., Kenosha, Wis.
Groeniger Mfg. Co., Columbus, O.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Haydenville Co., The, Haydenville, Mass.
I. & M.—Ireland & Matthews Mfg. Co., Detroit, Mich.
Lukomski Bros. Co., Detroit, Mich.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Mueller Co., Decatur, Ill.
Peck Bros. & Co., New Haven, Conn.
Powers Mfg. Co., Inc., J. P., Ossining, N. Y.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Union Metal Works, Inc., Chelsea, Mass.
Webb, F. W., Mfg. Co., Boston, Mass. (Trade names Dighton, Yale.)
Wiseco—J. B. Wise, Inc., Watertown, N. Y.
Wolff Mfg. Corp., Chicago, Ill.

TRAPS, VACUUM.

Armstrong—Armstrong Machine Works, Three Rivers, Mich.
Bishop & Babcock Co., The, Cleveland, O.
Bundy—Bundy Steam Trap Co., Nashua, N. H.
Cranetilt—Crane Co., Chicago, Ill.
Dunham, C. A., Co., Inc., Chicago, Ill.
Hoffman Specialty Co., Waterbury, Conn.
Holmberg Steam Trap Co., The, Lindsborg, Kans.
Illinois Engineering Co., Chicago, Ill.
Kieley & Muller, New York, N. Y. "Kieley."
Kitts—Kitts Mfg. Co., Oswego, N. Y.
Lytton—Lytton Mfg. Corp., Franklin, Va.
McAlear Mfg. Co., The, Chicago, Ill.
Morehead Mfg. Co., Detroit, Mich.
Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
Rado Co., The, Milwaukee, Wis.
Schutte & Koerting Co., Philadelphia, Pa.
Strong, Carlisle & Hammond Co., The, Cleveland, O. "Strong's."
Templeton Bros., Inc., Roslindale, Mass.
Wilmon—P. H. Gill & Sons Forge & Machine Works, Brooklyn, N. Y.
Wright-Austin Co., Detroit, Mich.

TRAYS, LAUNDRY, CEMENT, CONCRETE, GRANITE AND GRANITINE.

Acme Granolithic Co., Boston, Mass.
Anchor Stone Co., Minneapolis, Minn.
Anchor—Chas. J. Dondero, Portland, Ore.
Buffalo Wash Tray Works, Inc., Tonawanda, N. Y.
Chicago Granitine Mfg. Co., Chicago, Ill. (Trade names—Ajax, Princess.)
Economy Concrete Co., New Haven, Conn. (Trade names—Crescent, Economy.)

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Elmhurst Cement Laundry Tray Co., Oakland, Cal.
Elsmere—Standard-Elsmere Granite Co., Chicago, Ill.
Hanneman Bros., Detroit, Mich. "Eureka."
Nustone Products Corp., New York, N. Y.
Standard Stone Co., Brooklyn, N. Y.
Stone Tex—Chas. Wesely Co., Chicago, Ill.
Wessels, D. D., & Sons Co., Detroit, Mich.

TRAYS, LAUNDRY AND SINK COMBINED.

Alberene Stone Co., New York, N. Y.
Buffalo Wash Tray Works, Tonawanda, N. Y.
Chicago Granitine Mfg. Co., Chicago, Ill. (Trade names—Ajax, Princess.)
Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Crane Enamelware Co., Chattanooga, Tenn.
Elsmere—Standard Elsmere Granite Co., Chicago, Ill.
Euclid Mfg. Co., Paden City, W. Va.
Fair Haven Marble & Marbleized Slate Co., Fair Haven, Vt.
Ford's Porcelain Works, Inc., Perth Amboy, N. J.
Iron City Sanitary Mfg. Co., Pittsburgh, Pa.
Graham—The J. L. Mott Iron Works, Trenton, N. J.
Kohler Co., Kohler, Wis.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Tepeco—Trenton Potteries, Co., Trenton, N. J.
Walworth Company, Boston, Mass.
Wesely, Chas., Co., Chicago, Ill.
Woodley Slate Co., Bangor, Pa.
Wolff Mfg. Corp., Chicago, Ill.

TRAYS, LAUNDRY, METALLIC.

Wesely Economy—Chas. Wesely Co., Chicago, Ill.

TRAYS, LAUNDRY, PORCELAIN AND CHINA.

Clow, James B., & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Eljer Co., Ford City, Pa.
Eureka—Cochran, Drugan & Co., Trenton, N. J.
Federal-Huber Co., Chicago, Ill.
Fords Porcelain Works, Perth Amboy, N. J.
Ideal—The Trenton Potteries Co., Trenton, N. J.
Monarch—Wolff Mfg. Corp., Chicago, Ill.
Monument Pottery Co., Trenton, N. J.
Mott, J. L., Iron Works, Trenton, N. J. (Trade names—Warren, Wadsworth, Warwick, Wayne, Wentworth, Wickliffe.)

Sanitas Mfg. Co., Boston, Mass.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Stellar—The John Douglass Co., Cincinnati, O.
Tepeco—Trenton Potteries Co., Trenton, N. J.
Walworth Company, Boston, Mass.
Wheeling Sanitary Mfg. Co., Wheeling, W. Va.
Woodbridge—Woodbridge Ceramic Corp., Woodbridge, N. J.

TRAYS, LAUNDRY, PORCELAIN ENAMEL.

Beaver—The John Douglas Co., Cincinnati, O.
Clow, James B., & Sons, Chicago, Ill.
Columbia Sanitary Mfg. Co., Louisville, Ky.
Crane Co., Chicago, Ill.
Crane Enamelware Co., Chattanooga, Tenn.
Iron City Sanitary Mfg. Co., Pittsburgh, Pa.
Kohler Co., Kohler, Wis.
National Sanitary Co., The, Salem, O.
Richmond Radiator Co., New York, N. Y.
Standard Pressed Steel Co., Jenkintown, Pa.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Union Sanitary Works, Noblesville, Ind.
United States Sanitary Mfg. Co., Pittsburgh, Pa.
Walworth Company, Boston, Mass.
Washington Iron Works, Los Angeles, Cal.
Wolff Mfg. Corp., Chicago, Ill.

TRAYS, LAUNDRY, PORTABLE.

Tabletubs—Reznor Mfg. Co., Mercer, Pa.

TRAYS, LAUNDRY, SLATE.

Bangor Structural Slate Co., Bangor, Pa.
Butler, Philip H., & Son Co., Somerville, Mass.
Clow, James B., & Sons, Chicago, Ill.
Empire—The New York Slate Works, New York, N. Y.
Fair Haven Marble & Marbleized Slate Co., Fair Haven, Vt.
Federal-Huber Co., Chicago, Ill.
Keenan Structural Slate Co., Bangor, Pa.
McConnell Slate Co., Brooklyn, N. Y.
Nelson, N. O., Mfg. Co., Edwardsville, Ill.
Nustone Products Corp., New York, N. Y.
Pennsylvania Structural Slate Co., Easton, Pa.
Pyramid—Structural Slate Co., Pen Argyl, Pa.
Union Soapstone Co., Boston, Mass.
Woodley Slate Co., Bangor, Pa.

TRAYS, LAUNDRY, STONE.

Alberene Stone Co., New York, N. Y.
Anchor Stone Co., Minneapolis, Minn.
Butler, Philip H., & Son Co., Boston, Mass.
Chicago Granitine Mfg. Co., Chicago, Ill. (Trade names—Ajax, Princess.)
Duro—Seattle Laundry Tray Co., Seattle, Wash.
Duro Stone—Wolff Mfg. Corp., Chicago, Ill.
Euclid Mfg. Co., Paden City, W. Va. (natural stone).
Union Soapstone Co., Boston, Mass.
Wolff Mfg. Corp., Chicago, Ill.

TRAYS, TOOL, FACTORY.

Kirk & Blum Mfg. Co., Cincinnati, O.
Lyon Metallic Mfg. Co., Aurora, Ill.
Uhl Steel—Toledo Metal Furniture Co., Toledo, O.

TRIMMERS, LATH.

United States Machine Co., Williamsport, Pa.

TRIMMERS, LUMBER.

(See also "Machinery, Sawmill.")

American—Emmert Mfg. Co., Waynesboro, Pa.
American Saw Mill Machinery Co., Hackettstown, N. J.
General Supply & Machine Co., Meridian, Miss.
Gordon Hollow Blast Grate Co., Greenville, Mich. "Tower."
Hill-Curtis Co., Kalamazoo, Mich.
Hoosier—The Sinker-Davis Co., Indianapolis, Ind.
Lane Mfg. Co., Montpelier, Vt.
Obermayer, S., Co., The, Cincinnati, Ohio.
Standard Saw Mill Machinery Co., Erie, Pa.
United States Machine Co., Williamsport, Pa.
Wheland Co., The, Chattanooga, Tenn. "Wheland."

TRIMMERS, WOOD.

Bauer, A. E., & Son, Chicago, Ill. (Rotary knife.)
Emmert—Emmert Mfg. Co., Waynesboro, Pa.
Smith & Egge Mfg. Co., The, Bridgeport, Conn. (Hand.)

TRIMMINGS, FULLER WORK.

Haydenville Co., The, Haydenville, Mass.
Smith, E. C., Mfg. Co., Chicago, Ill.
Street & Kent Mfg. Co., Chicago, Ill.

TRIPPERS, CONVEYOR BELT.

Caldwell, H. W., & Son Co., Chicago, Ill.
Jeffrey Mfg. Co., The, Columbus, O.
Link-Belt Company, Chicago and Philadelphia.
Stephens-Adamson Mfg. Co., Aurora, Ill.

TRIPS, PNEUMATIC, FOR PUNCHES AND SHEARS.

Baird Pneumatic Tool Co., Kansas City, Mo.

TROLLEYS, TRACKS AND TRAMWAYS, OVERHEAD.

American Mono Rail Co., The, Cleveland, O.
American—Barber-Foster Engineering Co., Cleveland, O.
A-P—Allith-Prouty Co., Danville, Ill.
Armington—Armington Engineering Co., Wickliffe, O.
Box & Co., Alfred, Inc., Philadelphia, Pa.
Broderick & Bascom Rope Co., St. Louis, Mo.
Brownhoist—Brown Hoisting Machinery Co., Cleveland, O.
Cleveland Crane & Engineering Co., Wickliffe, O.
Conkey, H. D., & Co., Mendota, Ill. "Conco."
Curtis & Co. Mfg. Co., St. Louis, Mo.
Delta—New Jersey Foundry & Machine Co., New York.
Dickerman Hoist Mfg. Co., Cleveland, Ohio.
Dobbie Foundry & Machine Co., Niagara Falls, N. Y.
Euclid—Euclid Crane & Hoist Co., Euclid, O.
Farnham Mfg. Co., Buffalo, N. Y.
Ford Chain Block Co., Philadelphia, Pa.
Harrington Company, Philadelphia, Pa.
Johnston & Jennings Co., The, Cleveland, O.
Lane Bros. Co., Poughkeepsie, N. Y.
Link-Belt Company, Chicago and Philadelphia.
Lovejoy Tool Works, Chicago, Ill.
Maris Bros., Philadelphia, Pa.
Matcniess—Chisholm & Moore Mfg. Co., The, Cleveland, O.
Moore—The Chisholm-Moore Mfg. Co., Cleveland, O. (ball bearing).
Moore, Franklin, Co., Winsted, Conn.
Morris, Herbert, Inc., Buffalo, N. Y.
New Jersey Foundry & Machine Co., Div., New York, N. Y.
Nuttal, R. D., Co., Pittsburgh, Pa.
OveR-Way—Richards-Wilcox Mfg. Co., Aurora, Ill.
Palmerbee—Palmer-Bee Co., Detroit, Mich.
Philadelphia Tramrail Co., Philadelphia, Pa.
Randall Tramrail Co., Philadelphia, Pa.
Reading Chain Block Co., Reading, Pa.
Roeper Crane & Hoist Works, Inc., Reading, Pa.
Round & Son, D., Cleveland, O.
Scully Steel & Iron Co., Chicago, Ill.
Speidel Elevator Corp., Reading, Pa.
Standard—Wright Mfg. Co., Lisbon, O.
Star—Hunt-Helm-Ferris Co., Harvard, Ill.
Wagner Mfg. Co., Cedar Falls, Iowa.
Wensley Metal Products Co., Denver, Colo.
Yale & Towne Mfg. Co., Stamford, Conn. "Brown."

TROUGHS, GRINDSTONE, CAST IRON.

Hoppen, J. E., & Sons, Belleville, N. J.

TROWELS.

Atkins, E. C., & Co., Indianapolis, Ind.
Disston, Henry, & Sons, Inc., Philadelphia, Pa
Greyhound, Bishop, Cincinnati—Geo. H. Bishop & Co., Lawrenceburg, Ind. (brick and plastering.)
Johnson, Wm., Firm of, Newark, N. J.—(Painting and plastering.)
Marshalltown—Marshalltown Trowel Co., Marshalltown, Iowa.
Ohlen-Bishop Co., The, Columbus, O.
Sayre, L. A., Company, Newark, N. J.

TRUCKS, ASSEMBLY.

Clark, George P., Co., Windsor Locks, Conn.
Fairbanks Co., The, New York, N. Y.

TRUCKS, BARREL, BAG AND KEG.

Barrett-Cravens Co., Chicago, Ill.
Bruhn Mfg. Co., The Hobart, Ind. "Bruhn's Ash Remover."
Bryan Mfg. Co., Bryan, O.
Clark, Geo. P., Co., Windsor Locks, Conn.
Fairbanks Co., The, New York, N. Y.
Kent Machine Co., Cuyahoga Falls, Ohio. "Keg-Konveyor."
Lawson—Menasha Wood Split Pulley Co., Menasha, Wis.
Lewis-Shepard Co., Boston, Mass.
Lyon—Lyon Metallic Mfg. Co., Aurora, Ill.
McKinney One-Man—McKinney Mfg. Co., Pittsburgh, Pa.
Marion Dolly Truck—Marion Tool Works, Inc., Marion, Ind.
Ohio Mfg Co., Painesville, O.
Republic Steel Package Co., Cleveland, O.
Sabin Machine Co., The, Cleveland, O.
Stephenson—C. H. Stephenson, Lynn, Mass.
Syracuse—Syracuse Chilled Plow Co., Inc., Syracuse, N. Y.
Tipster—Liftsaver Mfg. Co., New York, N. Y.

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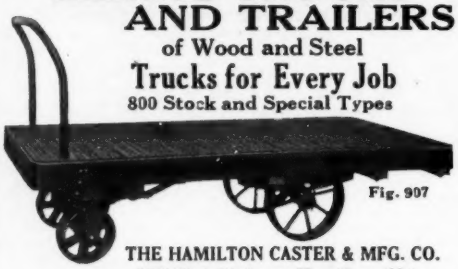
Fig. 907
THE HAMILTON CASTER & MFG. CO.
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TRUCKS, BELT ROLL.

Standard Leather Machinery Sales Co., Chicago, Ill.

TRUCKS, BOX.

Angle Steel Stool Co., Plainwell, Mich.
Chase Foundry & Mfg. Co., The, Columbus, O.
Clark, Geo P., Co., Windsor Locks, Conn.
Fairbanks Co., The, New York, N. Y.
Fairbanks, Morse & Co., Chicago, Ill.
Freeport Truck & Clamp Co., Freeport, Mich.
Howe Chain Company, Muskegon, Mich.
Laminar—American Vulcanized Fibre Co., Wilmington, Del.
Leatheroid—Rogers Fibre Co., Boston, Mass.
Lewis—G. B. Lewis Co., Watertown, Wis.
McKinney Mfg. Co., Pittsburgh, Pa. "McKinney One-Man."
Menasha Wood Split Pulley Co., Menasha, Wis. (fibre). "Lawson."
Standard Fibre Co., Somerville, Mass.
Yankee—Standard Scale & Supply Co., Pittsburgh, Pa.

TRUCKS, DRY KILN.

Bayley Mfg. Co., Milwaukee, Wis.
Conco—Conkey, H. D., & Co., Mendota, Ill.
Everlasting—Gillette Roller Bearing Co., Grand Rapids, Mich.
Glascock Stove & Mfg. Co., Greensboro, N. C.
National Dry Kiln Co., The, Indianapolis, Ind.
Nutting—Nutting Truck Co., Faribault, Minn.

TRUCKS, FACTORY AND MILL.

A. C. Co.—Lancaster Iron Works, Inc., Lancaster, Pa.
Adams Co., Dubuque, Ia.
American Pulley Co., Philadelphia, Pa.
Alemite Die Casting & Mfg. Co., Chicago, Ill. "Little Giant."
American—St. Louis Truck & Mfg. Co., St. Louis, Mo.
Anchor All Steel—Anchor Post Iron Works, New York, N. Y.
Arcade—Arcade Mfg. Co., Freeport, Ill.
Armstrong Truck Co., North Wales, Pa. "Armstrong Improved."
Barrett-Cravens Co., Chicago, Ill.
Blue Nose—Sharon Pressed Steel Co., Sharon, Pa.
Boston & Lockport Block Co., Boston, Mass. "Star."
Bousman—The Bousman Mfg. Co., Grand Rapids, Mich. (tank with drain valve).
Buss Machine Works, The, Holland, Mich.
Chase Foundry & Mfg. Co., The, Columbus, O.
Clark Co., Geo. P., The, Windsor Locks, Conn.
Cleveland Wire Spring Co., The, Cleveland, O.
Conco—H. D. Conkey & Co., Mendota, Ill.
Dietz Co., The, Fred, Indianapolis, Ind.
Electric—Electric Wheel Co., Quincy, Ill.
Equipment Mfg. Co., Cleveland, O.
Fairbanks Co., The, New York, N. Y.
Fairbanks, Morse & Co., Chicago, Ill.
Francis—Chas E. Francis Co., Rushville, Ind.
Freeport Truck & Clamp Co., Freeport, Mich.
General Wheelbarrow Co., Cleveland, Ohio. (formerly Akron Barrow Company).
Gillette Roller Bearing Co., Grand Rapids, Mich.
Glascock Stove & Mfg Co., Greensboro, N. C.
Hamilton Caster & Mfg. Co., Hamilton, O.
Howe "Jack Tongue"—Howe Chain Co., Muskegon, Mich.
Kessler Wheelbarrow Co., Philadelphia, Pa.
Lakewood Engineering Co., Cleveland, O.
Laminar—American Vulcanized Fibre Co., Wilmington, Del.
Lansing Co., Lansing, Mich.
Leader—Tucker & Dorsey Mfg. Co., Indianapolis, Ind.
Liftsaver—Liftsaver Mfg. Co., New York, N. Y.
Lyon Metallic Mfg. Co., Aurora, Ill. "Lyon."
Menasha Wood Split Pulley Co., The Menasha, Wis. "Lawson."
Morris Duck—Morris & Co., Inc., Groveville, N. J.
Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
National—Phillips, Doup & Co., Inc., Brooklyn, N. Y.
New Britain Machine Co., New Britain, Conn.
Nordyke & Marmon Co., Indianapolis, Ind.
Nutting—Nutting Truck Co., Faribault, Minn.
Obermayer, S., Co., The, Cincinnati, O.
Orangeville Mfg. Co., Orangeville, Pa.
Ot-Steel—Angle Steel Stool Co., Plainwell, Mich.
Plimpton Lift Truck Corp., The, Stamford, Conn.
Push Easy—S. E. Parker, Chicago, Ill.
Rogers Fibre Co., Boston, Mass.
Saginaw Stamping & Tool Co., Saginaw, Mich. "Raceaway."
Service Caster & Truck Co., Albion, Mich. "Big Mike."
Southern Skein & Foundry Co., Chattanooga, Tenn.
Spring Bearing—West Bend Equipment Co., West Bend, Wis.
Standard Pressed Steel Co., Jenkintown, Pa.
Standard—The Standard Scale & Supply Corp., Pittsburgh, Pa.
Streich, A., & Bro., Co., Oshkosh, Wis.
Stuebing-Cowan Co., The, Cincinnati, O. "Cowan U Type," "Stuebing."
Syracuse Chilled Plow Co., Syracuse, N. Y.
Towsley, John T., Co., Cincinnati, O. "Towsley."
Transmission Ball Bearing Co., Inc., The, Buffalo, N. Y.
Uhl Steel—The Toledo Metal Furniture Co., Toledo, Ohio.
Weber & Pitcher, Detroit, Mich.
Weimer Machine Works Co., Lebanon, Pa.
Western Wheelbarrow Mfg. Co., So. Ft. Smith, Ark.
Western Tool & Mfg. Co., Springfield, O. "Champion."
Wolverine Caster Co., Traverse City, Mich.
Yankee—Standard Scale & Supply Co., Pittsburgh, Pa.

TRUCKS AND TRACTORS, FACTORY, ELECTRIC.

Atlas Car & Mfg. Co., Cleveland, O.
Automatic Transportation Co., The, Buffalo, N. Y.
Baker-Raulang Co., The, Cleveland, Ohio. "Baker."
Barrett-Cravens Co., Chicago, Ill.
Buda—The Buda Co., Harvey, Ill.
Crescent Truck Co., Lebanon, Pa.
Elwell-Parker Electric Co., The, Cleveland, Ohio. "Elwell-Parker," "Self-Loading."
Koppel Industrial Car & Equipment Co., Koppel, Pa.
Lakewood Engineering Co., Cleveland, Ohio. "Lakewood."
Lansing Co., Lansing, Mich.
Oneida—Oneida Motor Truck Co., Green Bay, Wis.
Stuebing-Cowan Co., The, Cincinnati, O. "Cowan T E Type."
Towmotor Company, The, Cleveland, O.
Twin City—Twin City Co., Minneapolis, Minn.
Yale—Yale & Towne Mfg. Co., Stamford, Conn.

TRUCKS AND TRACTORS, FACTORY, GASOLINE ENGINE.

Barrett-Cravens Co., Chicago, Ill. "Powerox."
Empire Mfg. Co., Quincy, Ill.
Ford Motor Co., Detroit, Mich.
Koppel Industrial Car & Equipment Co., Koppel, Pa.
Lammert & Mann Co., Chicago, Ill.
Lansing Co., Lansing, Mich.
Merchant & Evans Co., Philadelphia, Pa.
Oneida Motor Truck Co., Green Bay, Wis. "Oneida."
Standard Scale & Supply Corp., Pittsburgh, Pa.
Truclift—Clark Tructractor Co., Buchanan, Mich.

TRUCKS, FACTORY, FOR MOVING IRON, STEEL, PIPE, ETC.

Champion—Western Tool & Mfg. Co., Springfield, O.
Chase Foundry & Mfg. Co., The, Columbus, O.
Howe Chain Company, Muskegon, Mich.
Lawson—Menasha Wood Split Pulley Co., Menasha, Wis.

TRUCKS, FACTORY, TRANSFER OR ELEVATING.

Arcade Mfg. Co., Freeport, Ill.
Atlas Crane Truck—Atlas Car & Mfg. Co., Cleveland, O.
Baker-Raulang Co., The, Cleveland, Ohio. "Baker."
Barrett-Cravens Co., Chicago, Ill.
Champion—Western Tool & Mfg. Co., Springfield, O.
Chase Foundry & Mfg. Co., The, Columbus, O.
Clark—The Geo. P. Clark Co., Windsor Locks, Conn.
Crescent Truck Co., Lebanon, Pa.
Conco—H. D. Conkey & Co., Mendota, Ill.
Howe Chain Company, Muskegon, Mich.
Jacklift, Singlelift—Lewis-Shepard Co., Boston, Mass.
National-Chapman—National Scale Co., Chicopee Falls, Mass.
Parks Ball Bearing Machine Co., Cincinnati, O.

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Fig. Q2183—Grocery

Fig. 01—Globe

Fig. A646C—Mortar

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Stuebing-Cowan Co., The, Cincinnati, O. "Transveyors, EL" (hand and electric), "Stuebing."
Stur-di-Trucks—The Sturdi-Truck Mfg. Co., Inc. Wilmington, Del.
Towsley, John T., Mfg. Co., Cincinnati, O.
Transmission Ball Bearing Co., Inc., The, Buffalo, N. Y.
Universal—The Transmission Ball Bearing Co., Buffalo, N. Y.
Wright—Wright-Hibbard Industrial Electric Truck Co., Inc., Phelps, N. Y. (electric).
Yale & Towne Mfg. Co., Stamford, Conn.

TRUCKS, FIRE.

(See also "Engines, Fire")

Robinson Fire Apparatus Mfg. Co., St. Louis, Mo.
Stempel Fire Extinguisher Co., St. Louis, Mo.

TRUCKS, FLAG POLE.

Harris Arthur, & Co., Chicago, Ill.
Pole & Tube Works, Inc., The, Newark, N. J. (ball bearing). "Poletube."

TRUCKS, HAND.

(See "Trucks, Factory and Mill.")

Alemite Die-Casting & Mfg. Co., Chicago, Ill. "Little Giant."

TRUCKS, LOG.

American—American Saw Mill Mach'y Co., Hackettstown, N. J.
Electric—Electric Wheel Co., Quincy, Ill.
Empire—Empire Mfg. Co., Quincy, Ill.
Michigan—S. C. Overpack, Manistee, Mich.
Leach Company, The, Co., Oshkosh, Wis.
Parker, S. E., Chicago, Ill.
Standard Saw Mill Machinery Co., Erie, Pa.
Streich, A. & Bro. Co., Oshkosh, Wis.

TRUCKS AND BUGGIES, LUMBER.

Adams—W. T. Adams Machine Co., Corinth, Miss.
American—American Saw Mill Mach'y Co., Hackettstown, N. J.
Archer Iron Works, Chicago, Ill.
Cleveland Machinery & Sup. Co., Cleveland, O.
Electric—Electric Wheel Co., Quincy, Ill.
Empire—Empire Mfg. Co., Quincy, Ill.
Francis, Chas. E., Co., Rushville, Ind.
Glascock Stove & Mfg. Co., Greensboro, N. C.
Huntsville Foundry & Machine Works, Huntsville, Ala
Lawson—Menasha Wood Split Pulley Co., Menasha, Wis.
Leach Company, The, Oshkosh, Wis.
Overpack, S. C., Manistee, Mich.
Ross Carrier—The Ross Carrier Co., Benton Harbor, Mich.
Scarbrough Mfg. Co., Chattanooga, Tenn.
Standard Scale & Supply Corp., Pittsburgh, Pa. (dollies and rollers.)
Standard Saw Mill Mach'y Co., Erie, Pa.
Streich, A. & Bro., Oshkosh, Wis.
Towsley, John T., Mfg. Co., Cincinnati, O.

TRUCKS, PAPER ROLL

Fairbanks Co., The, New York, N. Y.
Howe Scale Co. of Illinois, Chicago, Ill.
Little Giant—Marion Tool Works, Inc., Marion, Ind.
Stuebing-Cowan Co., The, Cincinnati, O. "Cowan Pope."
Teeter Truck—Liftsaver Mfg. Co., New York, N. Y.

TRUCKS AND CARRIERS, RADIATOR.

American—American Pipe Tool Co., Chicago, Ill.
Buell Bros., Fulton, N. Y. (truck and carrier combined). "Buell's."
Lawson—Menasha Wood Split Pulley Co., Menasha, Wis.
Little Giant—American Plumbing & Heating Co., Minneapolis, Minn.
Standard—Wm. Cromley, Lewisburg, Pa.

TRUCKS, SCOOP.

Climax—Lansing Company, Lansing, Mich.
Sackett, H. B., Screen & Chute Co., Chicago, Ill.

TRUCKS, STEEL BOX.

Clark, George P., Co., Windsor Locks, Conn.
Fairbanks Co., The, New York, N. Y.
Fairbanks, Morse & Co., Chicago, Ill.
Howe Chain Co., Muskegon, Mich.
Lawson—Menasha Wood Split Pulley Co., Menasha, Wis.
Terrell's—Terrell's Equipment Co., Grand Rapids, Mich.

TRUCKS, STEEL SHELVING.

Clark, George P., Co., Windsor Locks, Conn.
G. F.—General Fireproofing Co., The, Youngstown, O.

TRUCKS, WAREHOUSE.

Chase Foundry & Mfg. Co., The. Columbus, O.
Chattanooga Wheelbarrow Company, Chattanooga, Tenn.
Clark, George P., Co., Windsor Locks, Conn.
Howe Chain Co., Muskegon, Mich.
Fairbanks Co., The, New York, N. Y.
Lewis-Shepard Co., Boston, Mass.
Lawson—Menasha Wood Split Pulley Co., Menasha, Wis.
The Little Red Van Man—Western Specialty Co., Sioux City, Iowa.
Transmission Ball Bearing Co., Inc., The, Buffalo, N. Y.

TRUCKS, WELDING.

(See Carriages and Trucks, Cutting and Welding.)

TUBES, BLASTING.

Cressman, N. G., Co., Philadelphia, Pa.

TUBES, BOILER.

Boiler Tube Company of America, Pittsburgh, Pa.
Bros, Wm., Boiler & Mfg. Co., Minneapolis, Minn.
Chicago Tube & Iron Co., Chicago, Ill.
Cressman, N. G., Co., Philadelphia, Pa.
Detroit—Detroit Seamless Steel Tubes Co., Detroit.
Etna—Spang, Chalfant & Co., Pittsburgh, Pa.
Globe Steel Tubes Co., Milwaukee, Wis. (seamless)
Giberson, E. D. & Co., Inc., New York.
Keating, E. F., Pipe Bending & Supply Co., Hartford, Conn.
M—Monongahela Tube Co., Pittsburgh, Pa.
Munroe & Sons Mfg. Corp., R., Pittsburgh, Pa.
National-Shelby—National Tube Co., Pittsburgh, Pa.
P. I. Co.—Parkesburg Iron Co., Parkesburg, Pa.
Pittsburgh Steel Products Co., Pittsburgh, Pa. (seamless steel).
Randolph-Clowes Co., The, Waterbury, Conn. (brass and copper).
Reading—Reading Iron Co., Reading, Pa.
Reliance—Allegheny Steel Co., Pittsburg, Pa.
South Chester Tube Co., Chester, Pa.
Tyler Tube & Pipe Co., Washington, Pa.

TUBES, BOILER ARCH.

Chicago Tube & Iron Co., Chicago, Ill.
Standard Seamless Tubes Co., Ambridge, Pa.

TUBES, BOILER, LOCOMOTIVE.

Chicago Tube & Iron Co., Chicago, Ill.
Detroit—Detroit Seamless Steel Tubes Co., Detroit, Mich.
National—National Tube Co., Pittsburgh, Pa.
Standard Seamless Tubes Co., Ambridge, Pa.

TUBES, CONDENSER.

Anaconda—The American Brass Co., Waterbury, Conn.
Baltimore Tube Co., Baltimore, Md.
Bridgeport Brass Co., Bridgeport, Conn.
Eagle Smelting & Refining Works, New York.
North American Copper Co., New York, N. Y.
Shonberg I., Inc., Brooklyn, N. Y.
Scovill Mfg. Co., Waterbury, Conn.
Wheeler Condenser & Engineering Co., The, Carteret, N. J. "Crescent."

TUBES, HOSE MENDER.

Sherman Mfg. Co., H. B., Battle Creek, Mich.
Mulconroy Co., Inc., Philadelphia, Pa. "Mulconroy."

TUBES AND SHEATHS, PYROMETER PROTECTION.

Carborundum—The Carborundum Co., Niagara Falls, N. Y.
Pyrolite, Usalite—The Stupakoff Laboratories, Pittsburgh, Pa.

TUBES, RANGE BOILER, CIRCULATING.

Detroit Seamless Steel Tubes Co., Detroit, Mich.
Gerard Mfg. Co., Dickson City, Pa.
Gerstein & Cooper Co., South Boston, Mass.

TUBES, REFILL.

Frost Mfg. Co., The, Kenosha, Wis.

TUBES, SUPERHEATER.

Chicago Tube & Iron Co., Chicago, Ill.
Detroit Seamless Steel Tubes Co., Detroit, Mich.
National—National Tube Co., Pittsburgh, Pa.

TUBING, ALUMINUM.

Ivins, Ellwood, Tube Works, Philadelphia, Pa.
Rome Hollow Wire & Tube Co., Rome, N. Y.

TUBING, ASBESTOS, BRAIDED.

Asbestos Fibre Spinning Co., North Wales, Pa.

TUBING, BRASS, BRONZE AND COPPER.

Adams, Alston's—American Tube Works, Boston, Mass.
Anaconda—The American Brass Co., Waterbury, Conn.
Baltimore Tube Co., Baltimore, Md. (seamless).
Brey & Krause Mfg. Co., Allentown, Pa. (nickeled).
Bridgeport Brass Co., Bridgeport, Conn.
Bristol Brass Corp., Bristol, Conn. (brazed).
Chase Metal Works, Waterbury, Conn.
Dallas Brass & Copper Co., Chicago, Ill.
Detroit Copper & Brass Rolling Mills, Detroit, Mich
Erie-Buffalo Tube Co., Erie, Pa.
Faries Mfg. Co., Decatur, Ill.
Flawless—The National Copper & Smelting Co., Cleveland, O.
French Mfg. Co., Waterbury, Conn. (small sizes).
Green's—American Tube Works, Boston, Mass.
Mackenzie-Walton Co., Pawtucket, R. I. (small.)
Mueller Brass Co., Port Huron, Mich.
Motor Products Corp., Detroit, Mich.
National Conduit & Cable Co., Inc., Hastings-on-Hudson, N. Y.
North American Copper Co., New York, N. Y.
Ohio Brass & Copper Co., The, Cincinnati, O.
Penn Brass & Copper Co., The, Erie, Pa.
Randolph-Clowes Co., The, Waterbury, Conn.
Roberts Tube Works, Detroit, Mich.
Rome Brass & Copper Co., Rome, N. Y.
Rome Hollow Wire & Tube Co., Rome, N. Y.
Rome Mfg. Co., Rome, N. Y.
Scoville Mfg. Co., Waterbury, Conn.
Seymour Mfg. Co., The, Seymour, Conn.
Standard—Standard Seamless Tube Co., Ambridge, Pa.
Star—U. T. Hungerford Brass & Copper Co., New York, N. Y. (seamless.)
United American Metals Corp., Brooklyn, N. Y.
United Wire & Supply Co., Providence, R. I.
Waterbury Mfg. Co., Waterbury, Conn.
Wells & Co., A. H., Waterbury, Conn. (small).
Wheeler Condenser & Engineering Co., Carteret, N. J.
Wolverine—Michigan Copper & Brass Co., The, Detroit, Mich.
Wolverine Tube Co., Detroit, Mich. (seamless.)

TUBING OR HOSE, FLEXIBLE, METALLIC.

Advance Hose Mfg. Co., Philadelphia, Pa. (Trade names—Armorflex, Hightest, Holdtite.)
Almond—T. R. Almond Mfg. Co., Ashburnham, Mass.
Ametalhose—American Metal Hose Co., Waterbury, Conn.
Atlantic Metal Hose Co., New York, N. Y.
Breeze Metal Hose & Mfg. Co., Newark, N. J. "Fle-X-Met."
Cincinnati Rubber Mfg. Co., The, Cincinnati, O.
Cooper—Cooper Flexible Transmission Co., Brooklyn, N. Y.
Cory, Chas., & Son, Inc., New York, N. Y.
Duraflex—Herbert J. Meyer Co., Buffalo, N. Y.
Durbin Malleable Iron Foundries Co., East St. Louis, Ill.
Federal Metal Hose Corp., Buffalo, N. Y.
Goodall Semi-Metallic—Goodall Rubber Co., Inc., Philadelphia, Pa.
Kantkink—Goodyear Tire & Rubber Co., Akron, O.
Livermore, Homer F., Inc., Boston, Mass.
Mechanical Rubber Co., The, Cleveland, O.
Mulconroy Co., Inc., Philadelphia, Pa. "Mulconroy," "All Metal," "Dynamite."
Multifex—Robins Conveying Belt Co., New York, N. Y.
Pennsylvania Flexible Metallic Tubing Co., Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Titellex Metal Hose Co., Newark, N. J.
Union Rubber & Asbestos Co., Trenton, N. J.
U. S. Flexible Metallic Tubing Co., San Francisco, Cal.
Wheelock Mfg. Co., Wheelock, Vt. (flexible cutting lubricant tube).
Whitman Metal Goods Co., Whitman, Mass.

TUBING, FLEXIBLE, MINE VENTILATION.

Ventube—E. I. du Pont de Nemours & Co., Inc. (Fabrikoid Div.), Newburgh, N. Y.

TUBING, GASKET.

(See also "Gaskets, Tubular.")

Albanoid—Thermoid Rubber Co., Trenton, N. J.
Apex—W. H. Salisbury & Co., Inc., Chicago, Ill.
Blackoid—Thermoid Rubber Co., Trenton, N. J.
Delta—General Asbestos & Rubber Co., Charleston, S. C.
Dualoid—Thermoid Rubber Co., Trenton, N. J.

Ideal—General Asbestos & Rubber Co., Charleston.
Jenkins—Jenkins Bros., New York, N. Y.
Metal-Asbesto—A. W. Chesterton Co., Boston, Mass.
Rubberbestos—A. W. Chesterton Co., Boston, Mass.
Thoroid—Thermoid Rubber Co., Trenton, N. J.

TUBING GLASS, FOR ALL PURPOSES.

Friedrich & Dimmock, New York, N. Y.

TUBING, LEAD, SMALL SIZES.

(See also "Pipe, Lead.")

American Lead Co., Pittsburgh, Pa.
Stromi—Standard Rolling Mills, Inc., Brooklyn, N. Y.
Union Smelting & Refining Co., Inc., Newark, N. J.
United American Metals Corp., Brooklyn, N. Y.

TUBING, RUBBER.

Boston Woven Hose & Rubber Co., Cambridge, Mass.
Buckley, J. W., Rubber Co., New York, N. Y.
The H. O. Canfield Co., Bridgeport, Conn.
Cincinnati Rubber Mfg. Co., The, Cincinnati, O.
Diamond Rubber Co., Inc., The, Akron, O.
Eclat Rubber Co., The, Cuyahoga Falls, O.
Empire Rubber & Tire Co., Trenton, N. J.
Essex Rubber Co., Inc., Trenton, N. J.
Girard—Wise & Bailey, Philadelphia, Pa.
Globe Rubber & Tire Co., Inc., Trenton, N. J.
Goodrich, B. F., Rubber Co., Akron, O. "Superheat."
Gutta Percha & Rubber Mfg. Co., New York, N. Y.
Home Rubber Co., Trenton, N. J. "Black Seal," "White Cross."
Hudson Mechanical Rubber Co., New York, N. Y. "Hudson."
Mechanical Rubber Co., The, New York, N. Y.
Mulconroy Co., Inc., Philadelphia, Pa. "Mulconroy," "Flexible Metallic," "New Process."
New York Belting & Packing Co., New York, N. Y.
Pennsylvania Rubber Co., The, Jeannette, Pa.
Quaker City Rubber Co., Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Schacht Rubber Mfg. Co., Huntington, Ind.
Sovereign—The Wm. L. McLellan Co., Bridgeport, Conn.
Union Rubber & Asbestos Co., Trenton, N. J.
United States Rubber Co., New York, N. Y.
Willow—Williams-Bowman Rubber Co., Cicero, Ill.

TUBING, STEEL.

American Steel Tube Co., The, Toledo, O. "High Grade."
American Tube Co., Chicago, Ill.
Bordentown Steel & Tube Corp., Bordentown, N. J.
Cressman, N. G., Co., Philadelphia, Pa.
Dallas Brass & Copper Co., Chicago, Ill.
Detroit Seamless Steel Tubes Co., Detroit, Mich.
Elyria Iron & Steel Co., Cleveland, O. "Elisco."
Frasse, Peter A., & Co., Inc., New York, N. Y.
Giberson, E. D., & Co., Inc., New York.
Globe Steel Tubes Co., Milwaukee, Wis. (seamless).
Ivins', Ellwood, Tube Works, Philadelphia, Pa.
Keating, E. F., Pipe Bending & Supply Co., Hartford, Conn.
Mohegan Tube Co., The, Brooklyn, N. Y.
Motor Products Corp., Detroit, Mich.
National-Shelby—National Tube Co., Pittsburgh, Pa.
Ohio Seamless Tube Co., Shelby, O.
Phenix Tube Co., Warren, O.
Pittsburgh Seamless Tube Co., Beaver Falls, Pa.
Pittsburgh Steel Products Co., Pittsburgh, Pa. (seamless).
Richards, Benjamin Co., The, Winsted, Conn.
Rome Mfg. Co., Rome, N. Y.
Standard Seamless Tube Co., Ambridge, Pa.
Standard Steel Tube Co., Toledo, O.
Toledo Steel Tube Co., Toledo, O.
Youngstown Sheet & Tube Co., Youngstown, O. (seamless).

TURBINES, STEAM.

Alberger Pump & Condenser Co., New York, N. Y.
Allis-Chalmers Co., Milwaukee, Wis.
Buffalo Spiro—Buffalo Forge Co., Buffalo, N. Y.
Clipper—Rhodes Mfg. Co., Hartford, Conn.
Connecticut Turbine Mfg. Co., New London, Conn.
Coppus—Coppus Engineering Corp., Worcester, Mass.
Cramp, Wm., & Sons, Ship & Engine Building Co., The, Philadelphia, Pa.
Curtis—General Electric Co., Schenectady, N. Y.
De Laval Steam Turbine Co., Trenton, N. J. "De Laval."
Elliott Co., Jeannette, Pa. "Ridgway-Rateau."
Hill Pump & Turbine Works, Anderson, Ind.
Kerr Turbine Co., Wellsville, N. Y.
Lee—D. E. Whiton Machine Co., New London, Conn.
Moore Steam Turbine Corp., Wellsville, N. Y.
Platt—The Platt Iron Works Co., Dayton, O.
Power, Simplex—Power Turbo Blower Co., New York, N. Y. (small.)
Rateau-Smoot—Southwark Foundry & Machine Co., Philadelphia, Pa.
Soule Steam Feed Works, Meridian, Miss.
Standard Turbine Corp., Wellsville, N. Y.
Sturtevant, B. F., Co., Hyde Park, Mass.
Terry—Terry Steam Turbine Co., Hartford, Conn.
Westinghouse—Westinghouse Machine Co., The, East Pittsburgh, Pa.
Wing—L. J. Wing Mfg. Co., New York, N. Y.

TURBINES, WATER.

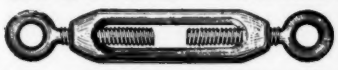
(See also "Wheels, Water.")

American Bolt Corp., Chicago, Ill.; Detroit, Mich.; Bayonne, N. J.
Bradway, C. P., Machine Works, West Stafford, Conn.
Fitz Water Wheel Co., Hanover, Pa. "Burnham," "I. X. L."
Chase Turbine Co., Orange, Mass.
C. M. C.—Christiana Machine Co., Christiana, Pa.
Coppus Engineering Corp., Worcester, Mass.
Cramp, Wm., & Sons, Ship & Engine Building Co., The, Philadelphia, Pa.
Davis Foundry & Machine Works, Rome, Ga.
De Laval Steam Turbine Co., Trenton, N. J.
Dow, L. B., Inc., Keene, N. H.
Hunt, Rodney, Machine Co., Orange, Mass.
Munson Mill Machinery Co., Inc., Utica, N. Y.
New American—The Dayton-Globe Iron Works Co., Dayton, O.
Pelton—The Pelton Water Wheel Co., San Francisco, Cal.
Pelton—Harrisburg Mfg. & Boiler Co., Harrisburg, Pa.
Samson—The James Leffel & Co., Springfield, O.
Smith, S. Morgan, Co., York, Pa. "Smith."
Trump—Trump Mfg. Co., Springfield, O.
Victor-Francis—The Platt Iron Works Co., Dayton, O.
Wellman-Sever-Morgan Co., Cleveland, O.
Wolf Co., The, Chambersburg, Pa.

TURNBUCKLES.

American Bolt Corp., Chicago, Ill.; Detroit, Mich.; Bayonne, N. J.
American Cable Co., Inc., The, New York, N. Y.
Bethlehem Steel Co., Bethlehem, Pa.
Bourne-Fuller Co., Cleveland, O.
Brazil—Republic Iron & Steel Co., Pittsburgh, Pa.
Broderick & Bascom Rope Co., St. Louis, Mo.

"Brownie" Turnbuckles



Strong and durable. Furnished either plain or galvanized.

Catalog on request. See our advertisement on "Clamps" in this book.

BROWNIE MFG. CO., Inc., Ft. Wayne, Ind.

Brownie—Brownie Mfg. Co., Fort Wayne, Ind.
Chicago Hardware & Fixture Co., Chicago, Ill.
Columbus Bolt Works Co., The, Columbus, O.
Continental Bolt & Iron Works, Chicago, Ill.
Eberhard Mfg. Co., The, Cleveland, O.
Fischer & Hayes Rope & Steel Co., Chicago, Ill.
Hallett Iron Works, The, Harvey, Ill.
Harper, H. M., Co., The, Evanston, Ill.
Hoopes & Townsend Co., Philadelphia, Pa.
Lanz, M., Bolt Co., Pittsburgh, Pa.
Laughlin, Thomas, Co., The, Portland, Me.
Lloyd Forge Co., Annville, Pa.
Macwhyte Company, Kenosha, Wis.
Marine Hardware Equipment Co., South Portland, Me.
Merrill Bros., Maspeth, New York, N. Y.
Miller—Miller Machine Works, Springs, Somerset Co., Pa.
Mockbee, C. M., Co., Cincinnati, O.
Modern Mfg. Co., Cleveland, O.
Moran Bolt & Nut Mfg. Co., St. Louis, Mo.
Newhall Chain Forge & Iron Co., New York.
Norris, W. C., Tulsa, Okla.
O'Leary Arthur J., & Son Co., Chicago, Ill.
Republic Iron & Steel Co., Youngstown, O.
Springturn—Holton-Abbott Mfg. Co., West Somerville, Mass.
St. Louis Screw Co., St. Louis, Mo.
Standard Nut & Bolt Co., Valley Falls, R. I.
Steward & Romaine Mfg. Co., Philadelphia, Pa.
Western Automatic Machine Screw Co., The, Elyria, O.
Wilcox, Crittenden & Co., Inc., Middletown, Conn. (See advertisement on page 348.)
Wood, J. R., Supply Co., Cincinnati, O.

TURNERS, LOGS, FOR SAW MILLS.

Adams—W. T. Adams Machine Co., Corinth, Miss.
Hill-Curtis Co., Kalamazoo, Mich.
Wheland Company, The, Chattanooga, Tenn.

DEPENDABLE

Drop Forged Turnbuckles

Stub End

Fig. 3071

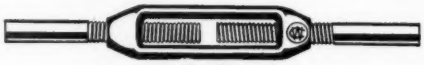


Fig. 307

With Hook and Eye Fittings

Fig. 301

Fig. 303

Turnbuckles, either galvanized or self-colored. Furnished with Hook and Eye and Right and Left Hand Thread, with Hook and Hook, with Eye and Eye, with Eye and Shackle, and with Shackle and Shackle. Sizes from 3/16 to 2¼ inches. Extra lengths to order. All galvanizing by the Durable Hot Process.

PETITE BRONZE TURNBUCKLES

MANGANESE BRONZE

With Swivel Eye

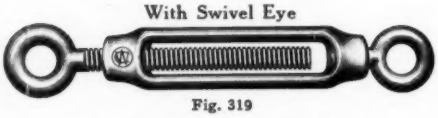


Fig. 319

With Right and Left Hand Thread

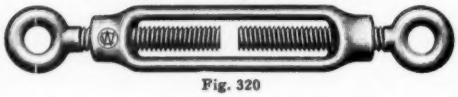


Fig. 320

Made in lengths from 3 to 7 inches; ¾ to 2" take up. Diameter of Ends ⅛, 5/32, 3/16, ¼ and 5/16 inches.

Prompt Shipments From Finished Stock. Try Us.

Wilcox, Crittenden & Co., Inc.
333 South Main Street
MIDDLETOWN, CONN.

TURNTABLES, AUTOMOBILE AND INDUSTRIAL RAILWAY.

A. C. Co.—Lancaster Iron Works, Inc., Lancaster, Pa.
Brown Hoisting Machinery Co., The, Cleveland, O.
Cambridge Iron Works, Cambridge, Mass.
Chase Foundry & Mfg. Co., Columbus, O.
Ernst—Chas. K. Ernst Co., Buffalo, N. Y.
The Gregg Co., Ltd., Hackensack, N. J.
Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Koppel Industrial Car & Equipment Co., Koppel, Pa.
Link-Belt Company, Chicago and Philadelphia.
Maris Bros., Philadelphia, Pa.
Northern Engineering Wks., Detroit, Mich.
Pulaski Foundry & Machine Co., Pulaski, Va.
R-W—Richards-Wilcox Mfg. Co., Aurora, Ill.
S-A—Stephens-Adamson Mfg. Co., Aurora, Ill.
Sackett, H. B., Screen & Chute Co., Chicago, Ill.
Universal—Canton Foundry & Machine Co., The, Canton, O.
Washburn & Granger, New York, N. Y.

TURNTABLES, OVERHEAD.

American Monorail Co., Cleveland, Ohio.
Conco—H. D. Conkey & Co., Mendota, Ill.
R-W—Richards-Wilcox Mfg. Co., Aurora, Ill.
Roeper—Roeper Crane & Hoist Works, Inc., Reading, Pa.
S-A—Stephens-Adamson Mfg. Co., Aurora, Ill.

TWINE, COTTON, JUTE, FLAX AND HEMP.

American Mfg. Co., Brooklyn, N. Y.
American Mills Co., Atlanta, Ga.
Columbian, Eureka—Columbian Rope Co., Auburn, N. Y.
Estes Mills, Fall River, Mass.
Hanover Cordage Co., Hanover, Pa.
Hoffman-Carr Mfg. Co., Philadelphia, Pa.
Hooven & Allison Co., The, Xenia, O.
Lees Mfg. Co., The, Westport, Conn.
Nycord—The New York Cordage Co., New York, N. Y.
Rockford Mfg. Co., Rockford, Tenn.
Samson Cordage Works, Boston, Mass.
Waterbury Co., New York, N. Y.
Whitlock Cordage Co., New York (hemp, sisal, newspaper).
Winne, Frank W., & Sons, Inc., Philadelphia, Pa.

UNDERGROUND CONDUITS, STEAM LINE.

Ric-wil Company, The, Cleveland, O.

UNIONS, AIR PUMP.

Dart Mfg. Co., E. M., Providence, R. I.
Jefferson Union Co., Lexington, Mass.
Powell, Wm., Co., The, Cincinnati, O.
Walworth Company, Boston, Mass. "Kewanee."

UNIONS, ANGLE.

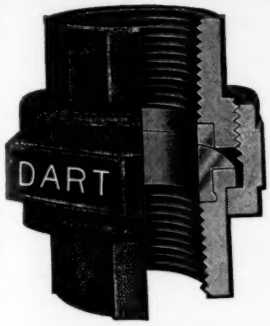
Auco—Angle Union Corp., New York, N. Y.
Slack-Horner Brass Mfg. Co., The, Denver, Colo.

UNIONS, BALL JOINT.

(See also, "Joints, Pipe, Flexible.")
Jefferson Union Co., Lexington, Mass.
Walworth Company, Boston, Mass. "Kewanee."

UNIONS, BRASS.

Acheson Mfg. Co., Rankin, Braddock, P. O., Pa.
Atkinson Co., The, Rochester, N. Y.
Brunner Manufacturing Co., Utica, N. Y.
Burlington Brass Works, Burlington, Wis.
Crane Co., Chicago, Ill. "C."
Commonwealth Brass Corp., Detroit, Mich.
Eastwood Wire Mfg. Co., Belleville, N. J.
Edna Brass Mfg. Co., The, Cincinnati, O.
Essex Brass Corp., Detroit, Mich.
Eureka—Eureka Brass Works, Inc., Cincinnati, O.
Exeter Brass Works, Exeter, N. H.
Fries & Co., Buffalo, N. Y.
General Brass Company, Detroit, Mich.
Hamlin & Emery Brass Co., The, Boston, Mass.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Imperial Brass Mfg. Co., Chicago, Ill.
Leader—Randle Machinery Co., Cincinnati, O.
Lunkenheimer Co., The, Cincinnati, O.
Milwaukee Valve Co., Milwaukee, Wis.
Mueller Co., Decatur, Ill.
National Brass Mfg. Co., Rochester, N. Y.
Nichol & Co., Thos. J., Cincinnati, O.
Octa—Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Perkes, Chas., Co., Philadelphia, Pa.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Pittsburgh Valve & Fittings Co., Barberton, O.
Powhatan Brass & Iron Wks., Ranson, W. Va.
Powell Co., The, Wm., Cincinnati, O. (hexagon.)
Presto—The Leslie Co., Lyndhurst, N. J.



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Union Fittings

Bronze to Bronze
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Built for Service and Guaranteed

A Free Sample Will Show You

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The Fairbanks Company
Gen'l Distributors

Dart Union Co., Ltd.
Toronto, Can.

Rhode Island—Rhode Island Fittings Co., Hills Grove, R. I.
Richardson Brass Co., Edro, Baltimore, Md.
Richter Brass Co., Cincinnati, O.
Sherman Mfg. Co., H. B., Battle Creek, Mich.
Sterling & Skinner Mfg. Co., The, Detroit, Mich.
United Brass Mfg. Co., Cleveland, O.
Walworth Company, Boston, Mass.

UNIONS, BRAZING.

Powell, Wm., Co., The, Cincinnati, O.

UNIONS, BRONZE.

Atlas Valve Co., Newark, N. J.
Eastwood—Eastwood Wire Mfg. Co., Belleville, N. J.
Exeter Brass Works, Exeter, N. H.
Powell, Wm., Co., The, Cincinnati, O.
Richardson, Edro, Brass Co., Baltimore, Md.
Tuxeda—Franklin Williams Co., Inc., Newark, N. J.
Universal—M. A. Connor, Lockport, N. Y.
Walworth Company, Boston, Mass.

UNIONS, CASING.

Newbury, Jay H., & Son, Goshen, N. Y.

UNIONS, CAST IRON.

Advance—J. A. Zurn Mfg. Co., Erie, Pa.
C.—Crane Co., Chicago, Ill.
Devlin Mfg. Co., Thos., Philadelphia, Pa.
Gem Mfg. Co., Pittsburgh, Pa.
General Fire Extinguisher Co., Providence, R. I.
Hays Mfg. Co., Erie, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Walworth Company, Boston, Mass.

UNIONS, FLANGE.

Acheson Mfg. Co., Rankin, Braddock, P. O., Pa.
Advance—J. A. Zurn Mfg. Co., Erie, Pa.
American Foundry & Mfg. Co., St. Louis, Mo.
Bard Patent—Bard Union Co., Inc., Norwich, Conn.
Belfield Co., H., Philadelphia, Pa.
Canton Supply Co., Canton, Ohio.
Crane Co., Chicago, Ill. "C."
Darling Valve & Mfg. Co., The, Williamsport, Pa.
Dart—E. M. Dart Mfg. Co., Providence, R. I. (Extra heavy.)
Detroit Brass & Malleable Works, Detroit, Mich.
Devlin Mfg. Co., Thos., Philadelphia, Pa.
Glenn Mfg. Co., St. Charles, Ill.
Guilderland Foundry Co., Guilderland, N. Y.
Hamlin & Emery Brass Co., The, Boston, Mass.
Hersney Machine & Foundry Co., The, Manheim, Pa.
Herbert Boiler Co., The, Chicago, Ill. "Herbert."
Hoffmann Mfg. Co., B., Milwaukee, Wis.
Illinois Malleable Iron Co., Chicago, Ill.
Jefferson Union Co., Lexington, Mass.
Josam Mfg. Co., The, Cleveland, O.
Kewanee—Walworth Company, Boston, Mass.
Limbert & Co., Geo. B., Chicago, Ill.
Metalwood—Metalwood Mfg. Co., Detroit, Mich.
Newbury, Jay H., & Co., Goshen, N. Y.
Newbury Mfg. Co., Monroe, N. Y.
Oil Well Supply Co., Pittsburgh, Pa.
Peerless Foundry Co., Pittsburgh, Pa.
Peco—Pittsburgh Engineering Co., Jeannette, Pa.
Pittsburgh Valve & Fittings Co., Barberton, O.
Ravenna Iron Co., Ravenna, N. Y.
Rhode Island Fittings Co., Providence, R. I.
Richardson, Edro, Brass Co., Baltimore, Md. (Brass.)
Toleda—Franklin Williams, Inc., Newark, N. J.
Universal—M. A. Connor, Lockport, N. Y.
Walworth Company, Boston, Mass.
Warren Tool & Forge Co., The, Warren, O. "Webco."

UNIONS, FLANGE, EXTRA HEAVY.

Bard Patent—The Bard Union Co., Norwich, Conn.
Dart, E. M., Mfg. Co., Providence, R. I.
Jefferson Union Co., Lexington, Mass.
Newbury, Jay H., & Co., Goshen, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, O.
Powell, Wm., Co., The, Cincinnati, O.
Walworth Company, Boston, Mass.
Zurn, J. A., Mfg. Co., Erie, Pa.

UNIONS, FLARED.

Powell, Wm., Co., The, Cincinnati, O.

UNIONS, HYDRAULIC.

Canton Supply Co., Canton, O.
Catawissa—The Central Forging Co., Catawissa, Pa.
Crane Co., Chicago, Ill.
Elmes, Chas. F., Engineering Works, Chicago, Ill.
Kaltenhaler, H. J., Philadelphia, Pa.
Kewanee—Walworth Company, Boston, Mass.
Metalwood—Metalwood Mfg. Co., Detroit, Mich.
Pittsburgh Brass Mfg. Co., Pittsburgh, Pa.
Toleda—Franklin Williams, Inc., Newark, N. J.
Vogt—Henry Vogt Machine Co., Louisville, Ky. (steel).
Walworth Company, Boston, Mass.
Watson-Stillman Co., The, New York, N. Y.

UNIONS, LEAD AND IRON CONNECTION.

Athol Pump Co., Athol, Mass.
Hays Mfg. Co., Erie, Pa.
Mueller Co., Decatur, Ill.
Zurn, J. A., Mfg. Co., Erie, Pa.

UNIONS, MALLEABLE IRON.

Bard Patent—The Bard Union Co., Norwich, Conn.
C.—Crane Co., Chicago, Ill.
Dart—E. M. Dart Mfg. Co., Providence, R. I.
Detroit Brass & Malleable Works, Detroit, Mich.
Excel—Providence Fittings Co., Boston, Mass.
Flagg, Stanley G., & Co., Philadelphia, Pa. "F. F.", "Keystone."
Illinois Malleable Iron Co., Chicago, Ill. "I. M. I. Co.", "C. D. Railroad."
Jarecki Mfg. Co., Erie, Penna.
Jefferson Union Co., Lexington, Mass.
Newbury, Jay H., & Son, Goshen, N. Y.
Oil Well Supply Co., Pittsburgh, Pa.
Pittsburgh Valve & Fittings Co., Barberton, O.
Rhode Island Fittings Co., Providence, R. I. "Rhode Island."
Universal—M. A. Connor, Lockport, N. Y.
Walco—Walworth Company, Boston, Mass.

UNIONS, MALLEABLE, BRASS OR BRONZE SEAT.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Atkinson Co., The, Rochester, N. Y.
Atlas Valve Co., Newark, N. J.
Bard Patent—The Bard Union Co., Inc., Norwich, Conn.
Belfield, H., Co., Philadelphia, Pa.
Buck—Standard Union Co., Boston, Mass.
Buckeye Iron & Brass Works, Dayton, O.
Burlington Brass Works, Burlington, Wis.
Catawissa—The Central Forging Co., Catawissa, Pa.
Codd—The Codd Tank & Specialty Co., Baltimore, Md.
Corley-De Wolfe Co., Elizabeth, N. J.
Crane Co., Chicago, Ill. (Trade names—Chicago, Octo Chicago, Railroad, Navy.)
Dart, E. M., Mfg. Co., Providence, R. I.
Erbco—Edro Richardson Brass Co., Baltimore, Md.
Exeter Brass Works, Exeter, N. H.

Hays Mfg. Co., Erie, Pa.
Illinois Malleable Iron Co., Chicago, Ill. (Trade names—Imico, Nokoros, C. D., Railroad.)
Jefferson Union Co., Lexington, Mass.
Kennedy Valve Mfg. Co., Elmira, N. Y.
King—King Union Co., Inc., Hillsgrove, R. I.
Lunkenheimer Co., Cincinnati, O.
McRae & Roberts Co., The, Detroit, Mich.
Nason Mfg. Co., New York, N. Y.
Pittsburgh Valve & Fittings Co., Barberton, O.
Powell, Wm., Co., Cincinnati, O.
Rhode Island Fittings Co., Providence, R. I. "Rhode Island," "Rifco."
Roberts Brass Mfg. Co., Detroit, Mich.
Rockwood Sprinkler Co. of Mass., Worcester, Mass.
Square Gee—Grabler Mfg. Co., Cleveland, O.
Star—Star Mfg. Co., Providence, R. I.
Tighton—Standard Union Co., Boston, Mass.
Utica Valve & Fixture Co., Utica, N. Y.
Walworth Company, Boston, Mass. (Trade names—Penn, Octa Penn, Octa Penn X, Kewanee, Walco.)
Warren Tool & Forge Co., Warren, O.
Warren Tool & Forge Co., The, Warren, O. "Webco."
Woodward-Wanger Co., Philadelphia, Pa.

UNIONS, RANGE BOILER.

Connor Universal—M. A. Connor, Lockport, N. Y.

UNIONS, REDUCING.

Central Forging Company, The, Catawissa, Pa. "Catawissa."
Jefferson Union Co., Lexington, Mass.

UNIONS, SOLDERING.

Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Albrass Co., Coxsackie, N. Y.
American Foundry & Mfg. Co., St. Louis, Mo.
Atkinson Co., Rochester, N. Y.
Burlington Brass Works, Burlington, Wis.
Crane Co., Chicago, Ill.
Detroit Sanitary Supply Co., Detroit, Mich.
Enterprise Brass Works, Muskegon, Mich.
Exeter Brass Works, Exeter, N. H.
Farnan Brass Works, Cleveland, O.
Federal-Huber Co., Chicago, Ill.
Fries & Co., Buffalo, N. Y.
Gopher—Union Brass & Metal Mfg. Co., St. Paul, Minn.
Hamlin & Emery Brass Co., Boston, Mass.
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Healy, Peter, Brass Foundry Co., Evansville, Ind.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Lunkenheimer Co., Cincinnati, O.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Mueller Co., Decatur, Ill.
Peck Bros. & Co., New Haven, Conn.
Powhatan Brass & Iron Wks., Ranson, W. Va.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Prier Brass Mfg. Co., Kansas City, Mo.
Republic Brass Co., Cleveland, O.
Richardson, Edro, Brass Co., Baltimore, Md.
Rockford Brass Works, Rockford, Ill.
Rundle Mfg. Co., Milwaukee, Wis.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Seattle Brass Co., Seattle, Wash.
Standard—Rockford Brass Works, Rockford, Ill.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Stebbins, E., Mfg. Co., Springfield, Mass.
United Brass Mfg. Co., Cleveland, O.
Walworth Company, Boston, Mass.

UNIONS, STEAM HOSE.

Nokoros—Illinois Malleable Iron Co., Chicago, Ill.

UNIONS, STEEL, FORGED, BRASS, STEEL OR MONEL SEAT.

Catawissa—The Central Forging Co., Catawissa, Pa.

UNIONS, STEEL, PRESSED, BRONZE SEAT.

Rockwood Sprinkler Co., of Mass., Worcester, Mass.

UNIONS, SWING.

Atlas Valve Co., Newark, N. J.
Grip Coupling Co., Ware, Mass.
Lunkenheimer Co., The, Cincinnati, O.

UNLOADERS, AIR COMPRESSOR.

Jarecki Mfg. Co., Erie, Penna.
Yarway—Yarnall-Waring Co., Philadelphia.

UNLOADERS, CAR.

Acme Road Machinery Co., Frankfort, N. Y.
Biehl Iron Works, Inc., The, Reading, Pa.
Brown Portable Conveying Mach. Co., Chicago, Ill.
Burch—Burch Plow Works Co., Crestline, O. (sand and gravel).
Caldwell, H. W., & Son Co., Chicago, Ill.
Galion Iron Works & Mfg. Co., Galion, Ohio. (Sand and gravel).
Godfrey Conveyor Co., Elkhart, Ind.
Haiss, Geo., Mfg. Co., New York, N. Y. "Haiss."
Lidgerwood Mfg. Co., New York, N. Y.
Link-Belt Company, Chicago and Philadelphia.
Osgood Co., The, Marion, Ohio. (Ballast.)
Reliance Universal Road Machinery Co., Kingston, N. Y.
Seaverns, James B., Co., Chicago, Ill.
Scoop Conveyor—Portable Machinery Co., Inc., Passaic, N. J.
Specialty Engineering Co., Philadelphia, Pa.
Standard Conveyor Co., North St. Paul, Minn.
Weller Mfg. Co., Chicago, Ill.

URINALS.

(See also, "Stalls" and "Ranges, Urinal.")
Clow, James B., & Sons, Chicago, Ill.
D. I.—Dalton-Ingersoll Mfg. Co., Boston, Mass.
Edwardsville Brass Works, Edwardsville, Ill.
Hygeia—Crane Co., Chicago, Ill.
Hygeia—James B. Clow & Sons, Chicago, Ill.
IXL Pump & Mfg. Co., Philadelphia, Pa.
Kenney Mfg. Co., The, New York, N. Y. (Trade names—Flushometer, Kenney.)
Maddock, John, & Sons, Trenton, N. J.
Mott, J. L., Iron Works, The, Trenton, N. J. (Trade names—Bedfordshire, Detroit, Director, Metropolitan, Newport, Stevens.)
Oxford—The Meyer-Sniffen Co., New York, N. Y.
Sanic Safety—The Hydraulic Specialty Co., Philadelphia, Pa.
Wolff Mfg. Corp., Chicago, Ill.

URINALS, CAST IRON.

American Foundry & Mfg. Co., St. Louis, Mo.
Barber Mfg. Co., The, Ashtabula, O.
Beekman—J. L. Mott Iron Works, New York, N. Y.
Central Foundry Co., New York, N. Y.
Clow, James B., & Sons, Chicago, Ill.
Jones Hollow Ware Co., Baltimore, Md.
Riverside Foundry & Galvanizing Co., Kalamazoo, Mich.
Weiskittel, A., & Son, Baltimore, Md.

URINALS, FLUSH VALVE.

(See also "Valves, Urinal Flushing.")
Standard Sanitary Mfg. Co., Pittsburgh, Pa. (Trade names—Atlas, Gianto, Rayber.)
Sloan Valve Co., Chicago, Ill. (Trade names—Royal, Sloan.)
Watrous-Duojet—Imperial Brass Mfg. Co., Chicago, Ill.

URINALS, PORCELAIN.

Bellmark Co., The, Trenton, N. J.
Capoco—Camden Pottery Co., Camden, N. J.
Cochran, Drugan & Co., Trenton, N. J.
Columbian—Wolff Mfg. Corp., Chicago, Ill.
Crane Co., Chicago, Ill.
Douglas, John, Co., The, Cincinnati, O. (Trade names—Olympia, Windsor.)
Ebco—D. A. Ebinger Sanitary Mfg. Co., Columbus, O.
Eljer Co., Ford City, Pa. (Trade names—Bedfordshire, Correcto, Eljer, Wall, Y. M. C. A.)
Fords Porcelain Works, Perth Amboy, N. J.
Great Western Pottery Co., The, Kokomo, Ind.
Hinsdale—Federal-Huber Co., Chicago, Ill.
Keystone—Monument Pottery Co., Trenton, N. J.
Sanitas Mfg. Co., Boston, Mass. (Trade names—Crown, Terminal, Revere, Simplicity.)
Sesco—Sanitary Earthenware Specialty Co., Trenton, N. J.
Sanito—J. L. Mott Iron Works, Trenton, N. J.
Trenton Potteries Co., Trenton, N. J. (Trade names—Ideal, Tepeco.)

URINALS, PORCELAIN ENAMELED.

Conemaugh Iron Works Co., Latrobe, Pa.
Crane Co., Chicago, Ill.
Iron City Sanitary Mfg. Co., Pittsburgh, Pa.
Kohler Co., Kohler, Wis.
MaGirl, P. H., Foundry & Furnace Works, Bloomington, Ill.
Manhattan—Peck Bros. & Co., New Haven, Conn.
Model—Rundle-Spence Mfg. Co., Milwaukee, Wis.
Mott, J. L., Iron Works, The, Trenton, N. J. (Trade names—Beekman, Utica.)
National Sanitary Co., The, Salem, O.
Rundle Mfg. Co., Milwaukee, Wis.
Southern Beauty—Crane Enamelware Co., Chattanooga, Tenn.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Union Sanitary Mfg. Co., Noblesville, Ind.
Walworth Company, Boston, Mass.
Weiskittel, A., & Son Co., Baltimore, Md.

URINALS, VITREOUS CHINA.

Abingdon Sanitary Mfg. Co., Abingdon, Ill.
Avon—Wheeling Sanitary Mfg. Co., Wheeling, W. Va.
Bedfordshire—Resolute Pottery Co., Trenton, N. J.
Camden Pottery Co., Camden, N. J.
Crane Co., Chicago, Ill.
Douglas, John Co., Cincinnati, O. (Trade names—Empire, New Era, Princeton.)
Ebinger, D. A., Sanitary Mfg. Co., Columbus, O.
Eljer Co., Ford City, Pa.
Federal-Huber Co., Chicago, Ill. (Trade names—Clearway, Impervio.)
Keystone Pottery Co., Trenton, N. J.
Lampoco—Lambertville Pottery Co., Lambertville, Pa.
Maddock, John, & Sons, Trenton, N. J.
Maddock's, Thos., Sons Co., Trenton, N. J. (Trade names—Madesta, Madstone.)
Mott, J. L., Iron Works, Trenton, N. J. (Trade names—Bedfordshire, Directo, Metropolitan, Purita, Sanito.)
Penn. Pottery Co., Philadelphia, Pa.
Resolute Pottery Co., Trenton, N. J.
Riverside—Wheeling Sanitary Mfg. Co., Wheeling, W. Va
Sesco—Sanitary Earthenware Specialty Co., Trenton, N. J.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Trenton Potteries Co., Trenton, N. J. (Trade names—Impervio, Tepeco, Two Fired.)
West Coast Porcelain Mfrs., Millbrae, Cal.

URINALS, VENTILATED.

Clow, James B., & Sons, Chicago, Ill.
Ebco—The D. A. Ebinger Sanitary Mfg. Co., Columbus, O. (octagon and wall).
Ford's Porcelain Works, Perth Amboy, N. J.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Walworth Company, Boston, Mass.
Wheeling Sanitary Mfg. Co., Wheeling, W. Va.

URINALS, WALL PATTERN.

Maddock's Sons Co., Thomas, Trenton, N. J. (Trade names—Madesta, Madisote, Madetto, Madapore, Madvance, Maderica.)
Wheeling Sanitary Mfg. Co., Wheeling, W. Va.

VALVE RESEATING TOOLS.

(See "Reseating Tools" and "Tools, Valve Reseating.")

VALVE UNIONS.

Nason Mfg. Co., New York, N. Y.

VALVES, ACID RESISTING.

Acimet—The Cleveland Brass Mfg. Co., Cleveland, O.
Ampco—American Metal Products Co., Milwaukee, Wis
Boyts, Porter Co., Connellsville, Pa.
C. C.—Crane Co., Chicago, Ill.
Chemetal—Nassau Pump & Valve Co., Rockville Centre, N. Y.
Darling Valve & Mfg. Co., Williamsport, Pa.
Duriron Co., Inc., The, Dayton, O. (gate.) "Duriron."
Eastwood Wire Mfg. Co., Belleville, N. J. "Perfection."
Ernst & Co., Newark, N. J. "Ernst Safety First."
Everlasting Valve Co., Jersey City, N. J. "Everlasting."
Fairbanks Co., The, New York, N. Y.
Homestead—Homestead Valve Mfg. Co., Inc., Homestead, Pa.
Jenkins—Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., Cincinnati, O.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Pioneer Alloy Products Co., Cleveland, O.
Resisto Pipe & Valve Co., East Cambridge, Mass. "Resisto."
Robertson Lead Co., James, Baltimore, Md.
Scott Valve Mfg. Co., Detroit, Mich.
United Lead Co., New York, N. Y.
Walworth Company, Boston, Mass.

VALVES, AIR GUN.

Jenkins—Jenkins Bros., New York, N. Y.
Powell Co., The, Wm., Cincinnati, O.

VALVES, AIR LINE.

Ashton Valve Co., Cambridge, Mass.
Dunham, C. A., Co., Inc., Chicago, Ill. "Dunham."
General Brass Company, Detroit, Mich.
Hoffman Specialty Co., Waterbury, Conn.
McAlear Mfg. Co., The, Chicago, Ill.
Marsh, Jas. P., & Co., Chicago. (Trade names—Paul. Thermodisk.)
Sterling Engineering Co., Milwaukee, Wis.

VALVES, AIR, FOR WATER MAINS.

Clark, H. W., Co., Mattoon, Ill.
Crispin—Multiplex Mfg. Co., Berwick, Pa.
Caskay—Yarnall-Waring Co., Philadelphia, Pa.
Coffin Valve Co., Boston, Mass.
Ernst & Co., Newark, N. J. "Ernst."
Fisher Governor Co., Inc., The, Marshalltown, Iowa.
Globe—Globe Automatic Sprinkler Co., Philadelphia, Pa.
Ludlow Valve Mfg. Co., The, Troy, N. Y.
Marsh—Jas. P. Marsh & Co., Chicago, Ill.
McAlear Mfg. Co., The, Chicago, Ill.
McCracken Machine Works, Portland, Oregon.
National Gauge Co., Brooklyn, N. Y.
Rensselaer Valve Co., Troy, N. Y.
Russell Perfect—W. A. Russell & Co., New York, N. Y.
Simplex Valve & Meter Co., Philadelphia, Pa.
Wood & Co., R. D., Philadelphia, Pa.

VALVES, ALARM, FOR SPRINKLER SYSTEMS.

Central Automatic Sprinkler Co., Philadelphia, Pa.
Esty Sprinkler Co., Laconia, N. H.
Globe Automatic Sprinkler Co., The, Philadelphia.
International Sprinkler Co., New York. "International."
Rockwood Sprinkler Co., of Mass., Worcester, Mass.
Underwriters—Kennedy Valve Mfg. Co., Elmira, N.Y.
Viking Corp., The, Hastings, Mich.

VALVES, ALL IRON.

Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Powell, The, Wm., Co., Cincinnati, O.
Walworth Company, Boston, Mass.

VALVES, ALTITUDE.

Golden-Anderson Valve Specialty Co., Pittsburgh, Pa. "Anderson."
Foster—Foster Engineering Co., Newark, N. J.
Kieley & Mueller Co., New York, N. Y.
Spence Engineering Co., Inc., New York, N. Y.

VALVES, AMMONIA.

American—American Valve Co., Coxsackie, N. Y
Ashton Valve Co., Cambridge, Mass.
Cash, A. W., Company, Decatur, Ill.
Crane—Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co. (Limited), Williamsport, Pa.
Ernst & Co., Newark, N. J. "Ernst."
Jenkins—Jenkins Bros., New York, N. Y.
Judson Governor Co., The, Rochester, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
J. E. Lonergan Co., Philadelphia, Pa. "Lonergan."
Ludlow—The Ludlow Valve Mfg. Co., Troy, N. Y.
Lunkenheimer Co., Cincinnati, O.
Ruemmelli-Dawley Mfg. Co., St. Louis, Mo.
Vogt, Henry, Machine Co., Inc., Louisville, Ky. (Drop forged steel.)
Walworth Company, Boston, Mass.

VALVES, ANGLE, IRON BODY.

Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Fairbanks—The Fairbanks Co., New York, N. Y.
Ferrenewo—Lunkenheimer Co., The, Cincinnati, O.
Garratt & Co., W. T., San Francisco, Cal.
Hancock—Manning, Maxwell & Moore, Inc., New York, N. Y.
Haydenville Co., The, Haydenville, Mass.
Hoffmann, B., Mfg. Co., Milwaukee, Wis.
Homestead—Homestead Valve Mfg. Co., Homestead Pa.
Jarecki Mfg. Co., Erie, Penna.
Jenkins Bros., New York, N. Y.
Judson Governor Co., The, Rochester, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Materne, John P., Mfg. Co., St. Louis, Mo.
New Bedford Valve Mfg. Co., New Bedford, Mass. "Whale."
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Pratt & Cady—Reading Steel Casting Co., Inc., Bridgeport, Conn.
Pittsburgh—Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
Powell, Wm., Co., The, Cincinnati, O.
Scott—Scott Valve Mfg. Co., Detroit, Mich.
Walworth Company, The, Boston, Mass. "Sigma Steel."

VALVES, ANGLE, STEEL.

Edward—The Edward Valve & Mfg. Co., East Chicago, Ind.
Hancock—Manning, Maxwell & Moore, Inc., New York, N. Y.

Reading—Reading Steel Casting Co., Inc., Bridgeport, Conn.
Walworth Company, Boston, Mass. ("Sigma Steel.")
Whale—New Bedford Valve Mfg. Co., New Bedford, Mass.

VALVES, ANTI-FREEZING.

Powell, Wm., Co., The, Cincinnati, O.
Strong—The Strong, Carlisle & Hammond Co., Cleveland, O.

VALVES, AUTOMATIC EQUALIZING, OR NON-RETURN BOILER STOP.

Berry—**The Berry Engineering Co., Chester, Pa.**
Ernst—Ernst & Co., Newark, N. J.
Jenkins Bros., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, O.
McAlear Mfg. Co., The, Chicago, Ill.
Powell Co., The Wm., Cincinnati, O.
Ruggles-Klingemann Mfg. Co., Salem, Mass. "R-K."
Schutte & Koerting Co., Philadelphia, Pa.
Strong—Strong, Carlisle & Hammond Co., Cleveland, O.
Walworth Company, The, Boston, Mass.

VALVES, AUTOMOBILE ENGINE, FOR REPLACEMENT.

Ampco—American Metal Products Co., Milwaukee, Wis.

VALVES, AUTOMOBILE WASHER.

Street & Kent Mfg. Co., Chicago, Ill.

VALVES, BABBITT SEAT.

Chapman—Chapman Valve Mfg. Co., Indian Orchard, Mass.

VALVES, BACK PRESSURE.

American Foundry & Mfg. Co., St. Louis, Mo.
Atlas—Monash-Younker Co., Chicago, Ill.
Belfield Co., H., Philadelphia, Pa.
Crane—Crane Co., Chicago, Ill.
Davis—G. M. Davis Regulator Co., Chicago, Ill.
Eclipse—Illinois Engineering Co., Chicago, Ill.
Edward Valve & Mfg. Co., East Chicago, Ind. "Edward."
Everlasting Valve Co., Jersey City, N. J.
Excelsior—Jenkins Bros., New York, N. Y.
Fisher Governor Co., Inc., The, Marshalltown, Iowa.
Foster—Foster Engineering Co., Newark, N. J.
G-R—The Griscom-Russell Co., New York, N. Y.
Garratt & Co., W. T., San Francisco, Cal.
Hoffman Mfg. Co., B., Milwaukee, Wis.
Hussey, McCann & Co., New York, N. Y. "Hussey."
Illinois—Illinois Engineering Co., Chicago, Ill.
Jenkins Mfg. Co., Bloomfield, N. J.
Kieley & Muller, New York, N. Y. "Kieley."
K. & T.—Klipfel Mfg. Co., Chicago, Ill.
Locke Regulator Co., Salem, Mass.
McAlear Mfg. Co., Chicago, Ill.
Mueller Steam Specialty Co., Inc., New York, N. Y.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Open Coil Heater & Purifier Co., Indianapolis, Ind.
Peco—Pittsburgh Engineering Co., Jeannette, Pa.
R.-K.—Ruggles-Klingemann Mfg. Co., Salem, Mass.
Schutte—Schutte & Koerting Co., Philadelphia, Pa.
Scott Valve Mfg. Co., Detroit, Mich.
Universal—Boylston Steam Specialty Co., Chicago, Ill.
Utility—Standard Steam Specialty Co., New York.
Walworth Company, The, Boston, Mass.
Worthington Pump & Machinery Corp., New York, N. Y.
Zurn, J. A., Mfg. Co., Erie, Pa.

VALVES, BALANCED LEVER.

American District Steam Co., North Tonawanda, N. Y.
Belfield Co., H., Philadelphia, Pa.
Curtis—Julian d'Este Co., Boston, Mass.
Davis—G. M. Davis Regulator Co., Chicago, Ill.
Defender Automatic Regulator Co., St. Louis, Mo.
Eclipse—Illinois Engineering Co., Chicago, Ill.
Fisher—Fisher Governor Co., Marshalltown, Iowa.
Foster—Foster Engineering Co., Newark, N. J.
Foster—Walworth Company, Boston, Mass.
Hydraulic Press Mfg. Co., The, Columbus, O. (high pressure). "H-P-M."
Harris—Arthur Harris & Co., Chicago, Ill.
Hoffmann, B., Mfg. Co., Milwaukee, Wis.
Homestead—Homestead Valve Mfg. Co., Homestead, Pa.
Illinois Engineering Co., Chicago, Ill.
Kieley & Muller, New York, N. Y. "Kieley."
Klipfel Mfg. Co., Chicago, Ill. "K. & T."
Locke Regulator Co., Salem, Mass. "Locke."
Ludlow—The Ludlow Valve Mfg. Co., Troy, N. Y.
Lunkenheimer Co., Cincinnati, O.
McAlear Mfg. Co., The, Chicago, Ill.
Mason Regulator Co., Boston, Mass. "Mason."
Mueller Steam Specialty Co., Inc., New York, N. Y.
Nason—Nason Mfg. Co., New York, N. Y.
Powell Co., The Wm., Cincinnati, O.
Power Turbo Blower Co., New York, N. Y.
R.-K.—Ruggles Klingemann Mfg. Co., Salem, Mass.
Schutte—Schutte & Koerting Co., Philadelphia, Pa.
Scott—Scott Valve Mfg. Co., Detroit, Mich.
Telescope—Chas. A. Claflin & Co., Boston, Mass.
Trojan—Ross Valve Mfg. Co., Inc., Troy, N. Y.
Waters—Waters Governor Co., Boston, Mass.
Watts Regulator Co., Lawrence, Mass.
Wellman-Seaver-Morgan Co., Cleveland, O.

VALVES, BELL.

Glasgow Iron Co., Pottstown, Pa.

VALVES, BILGE, STOP AND CHECK.

Ford—Ford Regulator Corp., New York, N. Y.

VALVES, BLEEDER.

Davis—G. M. Davis Regulator Co., Chicago, Ill.

VALVES, BLOWER.

American Safety Lamp & Mine Supply Co., Scranton, Pennsylvania.
d'Este, Julian, Co., Boston, Mass.
Edna Brass Mfg. Co., Cincinnati, O.
Jenkins Seiclo—Jenkins Bros., New York, N. Y.
Nathan Mfg. Co., New York, N. Y.
Watson—Watson & McDaniel Co., Philadelphia, Pa.

VALVES, BLOW-OFF.

American Safety Lamp & Mine Supply Co., Scranton, Pa.
Ashton—The Ashton Valve Co., Cambridge, Mass.
Bashlin—The Bashlin Co., Warren, Pa.
Bordo—L. J. Bordo Co., Philadelphia, Pa.
Buckeye Iron & Brass Works, Dayton, O.
Cadman, A. W., Mfg. Co., Pittsburgh, Pa. "Indestructible."
Capitol Brass Works, Detroit, Mich.
Chapman Valve Mfg. Co., Indian Orchard, Mass. "Chapman."
Crane—Crane Co., Chicago, Ill.
Crosby Steam Gage & Valve Co., Boston, Mass.
Cyclone—The Wm. Powell Co., Cincinnati, O.
Darling Valve & Mfg. Co., Williamsport, Pa.
Detroit Lubricator Co., Detroit, Mich.
Duplex—O'Malley-Beare Valve Co., Chicago, Ill.
Duro—The Lunkenheimer Co., Cincinnati, O.
Eastwood—Eastwood Wire Mfg. Co., Belleville, N. J.
Eckenroth—Eckenroth Valve & Mfg. Co., Philadelphia, Pa.
Eclipse—Illinois Engineering Co., Chicago, Ill.
Edward Valve & Mfg. Co., East Chicago, Ind. "Edward."
Elliott Co., Jeannette, Pa. "Faber Self Cleaning."
Elmes, Chas. F., Engineering Works, Chicago, Ill.
Ernst & Co., Newark, N. J. "Ernst."
Everlasting—Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Everlasting—Scully Steel & Iron Co., Chicago, Ill.
Everlasting Valve Co., Jersey City, N. J. "Everlasting."
Exeter Brass Works, Exeter, N. H.
Fairbanks Co., The, New York, N. Y.
Garratt, W. T., & Co., Inc., San Francisco, Cal.
General Brass Company, Detroit, Mich.
Hancock—Hancock Inspirator Co., New York, N. Y.
Hancock—Manning, Maxwell & Moore, Inc., New York, N. Y.
Hart—Nathan Mfg. Co., New York.
Hennebohle Co., Chicago, Ill.
Homestead Valve Mfg. Co., Homestead, Pa. "B. & O. Protected Seat," "Hovalco."
Jenkins—Jenkins Bros., New York, N. Y.
Judson Governor Co., The, Rochester, N. Y.
Kelly Self Grinding—Kelly Valve Co., Muskegon, Mich.
Ludlow—The Ludlow Valve Mfg. Co., Troy, N. Y.
Lunkenheimer Co., Cincinnati, O.
Lytton—Lytton Mfg. Corp., Franklin, Va.
Merco Nordstrom Plug Valve Co., San Francisco, Cal.
Milwaukee Steam Appliance Co., West Allis, Wis. "Ward."
Multiplate—O'Malley Beare Valve Co., Chicago, Ill.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Okadee—Amco Sales Corp., Chicago, Ill.
Peck Bros. & Co., New Haven, Conn.
Perkes, Chas., Co., Philadelphia, Pa.
Pittsburgh Gage & Supply Co., Pittsburgh, Pa. "Clean Seat."
Pittsburgh Valve & Fittings Co., Barberton, O.
Powell Co., The Wm., Cincinnati, O.
Pratt & Cady—Reading Steel Casting Co., Inc., Bridgeport, Conn.
Renewable—Star Brass Mfg. Co., Boston, Mass.
Richardson-Phenix Co., Milwaukee, Wis.
Robertson—Robertson Co., John F., Pittsburgh, Pa.
Rothschild—John Simmons Co., New York, N. Y.
Schiller—Joseph F. Schiller, Philadelphia, Pa.
Scott Valve & Mfg. Co., Detroit, Mich.
Security—Wm. T. Fowden, Chester, Pa.

Fig. 600
Screwed, Jenkins Extra Heavy Bronze Globe Valve

Fig. 352
Screwed, Jenkins Standard Bronze Swing Check Valve

Fig. 370
Screwed, Jenkins Standard Bronze Gate Valve

Fig. 293
Flanged, Jenkins Extra Heavy Iron Body Automatic Equalizing Stop and Check (Non-return) Angle Valve

Fig. 296
Screwed, Jenkins Standard Iron Body Y or Blow-off Valve

Fig. 106
Screwed, Jenkins Standard Bronze Globe Valve

Valve-insurance

Insure against unsatisfactory valve performance, against excessive bills for valve upkeep.

Do this by specifying—and insisting on—valves marked with the Jenkins "Diamond." For behind every genuine Jenkins Valve you buy stands the fair offer shown above.

The Jenkins policy of manufacture is a "valve insurance policy" in itself. Metals used are carefully selected and are proved by analyses before and after casting.

Designs provide for strength where strength is needed, and no valve leaves the factory untested.

Jenkins Valves include valves for practically every requirement. At supply houses everywhere.

JENKINS BROS.

80 White Street.....New York, N. Y.
524 Atlantic Avenue.....Boston, Mass.
133 No. Seventh Street....Philadelphia, Pa.
646 Washington Boulevard.....Chicago, Ill.

JENKINS BROS., LIMITED
Montreal, Canada London, England

FACTORIES
Bridgeport, Conn. Elizabeth, N. J.
Montreal, Canada

Always marked with the "Diamond"
Jenkins Valves
SINCE 1864

Jenkins Renewable Valve Disc
Send for schedule of Jenkins Discs for air, hot or cold water, steam, gas or oil

Jenarco Sheet Packing
—a red, vulcanized rubber sheet packing for hot and cold water or saturated steam

Jenkins Ready-Cut Gaskets
may be furnished cut from any brand of Jenkins Packing in the size, shape and thickness specified

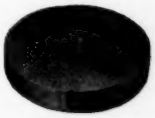


Fig. 227
Jenkins Pump Valve
Send for schedule of principal compounds and service for which Jenkins Pump Valves are guaranteed

GENUINE
MONCRIEFF
SCOTCH
GAUGE GLASSES
Jenkins Bros. are sole U.S. Agents for these famous Scotch Glasses,
JENKINS BROS. MONCRIEFF GAUGE GLASS SOLE AGENTS FOR UNITED STATES MADE IN SCOTLAND

Sphero—The Fairbanks Co., New York, N. Y.
Strong, Carlisle & Hammond Co., Cleveland, O.
Tessmer Machine & Tool Co., Detroit, Mich.
Victory Mfg. Co., Niles, Cal.
Walworth Company, Boston, Mass.
W. & McD.—Watson & McDaniel Co., Philadelphia, Pa.
Williams, D. T., Valve Co., Cincinnati, O.
Yarway—The Yarnall-Waring Co., Philadelphia, Pa.

VALVES, BRASS AND BRONZE, ANGLE, CHECK AND GLOBE.

Albany—Albany Steam Trap Co., Albany, N. Y.
American Foundry & Mfg. Co., St. Louis, Mo.
American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
American—American Valve Co., Coxsackie, N. Y.
Arrow—Star Brass Mfg. Co., Boston, Mass.
Athol Pump Co., Athol, Mass.
Bailey Horz—The Mutual Supply Co., Newark, N. J.
Bashlin—The Bashlin Co., Warren, Pa
Bayer Co., The, St. Louis, Mo. "Bayer."
Beifield Co., H., Philadelphia, Pa. (Trade names—J. R. G., Just Right.)
Belknap Mfg. Co., The, Bridgeport, Conn.
Belleville Pattern—Eastwood Wire Mfg. Co., Belleville, N. J.
Bourbon—The Bourbon Copper & Brass Works, Cincinnati, O.
Buckeye Iron & Brass Works, Dayton, Ohio.
Capitol—Capitol Brass Works, Detroit, Mich.
Central Brass Mfg. Co., The, Cleveland, O.
Clean Seat—Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
Chapman—Chapman Valve Mfg. Co., Indian Orchard, Mass.
Coffin—Coffin Valve Co., Boston, Mass
Clip, Renewo, Samson—The Lunkenheimer Co., Cincinnati, O.
Cook, A. D., Inc., Lawrenceburg, Ind.
Corry—Trill Indicator Co., Corry, Pa.
Crane—Crane Co., Chicago, Ill.
Davis—G. M. Davis Regulator Co., Chicago, Ill. (cushioned.)
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Douglas—W. & B. Douglas, Middletown, Conn.
Edward Valve & Mfg. Co., East Chicago, Ind. "Edward."
Fairbanks—The Fairbanks Co., New York, N. Y. (bronze).
Flatplug—Everlasting Valve Co., Jersey City, N. J.
Garratt & Co., W. T., San Francisco, Cal.
General Brass Company, Detroit, Mich.
G. F. E., L. R. D., Providence—General Fire Extinguisher Co., New York, N. Y.
Goetz—Goetz Brass Company, Chicago, Ill.
Hammond Brass Works, Hammond, Ind.
Hampshire, Van Wel—The Haydenville Co., Haydenville, Mass.
Hancock—Manning, Maxwell & Moore, Inc., New York, N. Y.
Hart—Nathan Mfg. Co., New York, N. Y.
Hays Mfg. Co., Erie, Pa.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Homestead—Homestead Valve Mfg. Co., Homestead, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Incline Seat—Greene, Schaw & Schaw Co., West Berkeley, Cal.
Jarecki Mfg. Co., Erie, Penna.
Jenkins—Jenkins Bros., New York, N. Y.
Kelly Self Grinding—Kelly Valve Co., Muskegon, Mich.
Kennedy—The Kennedy Valve Mfg. Co., Elmira, N. Y.
K. & M.—Kinsey & Mahler Co., Peoria, Ill.
Lawler—Lawler Waterfeed & Damper Co., Mt. Vernon, N. Y.
Leader—The Randle Machinery Co., Cincinnati, O.
Locke, L. R. D., Noiseless—Locke Regulator Co., Salem, Mass.
Ludlow—The Ludlow Valve Mfg. Co., Troy, N. Y
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Marsh Valve Co., Dunkirk, N. Y.
Metalwood—Metalwood Mfg. Co., Detroit, Mich.
Milwaukee Valve Co., Milwaukee, Wis.
Moak Machine & Supply Co., Port Huron, Mich.
Mount Morris Valve Corp., Mount Morris, N. Y.
Mueller Non Fouling—Mueller Co., Decatur, Ill.
Multiplate—O'Malley-Beare Valve Co., Chicago, Ill.
Nichol, Thos. J., Co., The, Cincinnati, O.
Nokut—Richardson Phenix Co., Milwaukee, Wis.
Ohio Brass Co., Mansfield, O. "O-B."
Ohio Pump & Brass Co., Columbus, O.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Pittsburgh Valve & Fittings Co., Barberton, O.
Powell Co., The Wm., Cincinnati, O.
Powhatan Brass & Iron Works, Ranson, W. Va.
Pratt & Cady—Reading Steel Casting Co., Inc., Bridgeport, Conn.
Renewable—Star Brass Mfg. Co., Boston, Mass.
Rensselaer—Rensselaer Valve Co., Troy, N. Y. (horizontal only).
Rick—Rickersberg Brass Co., Cleveland, O.
Roberts Brass Co., Milwaukee, Wis.
John F. Robertson Co., Pittsburgh, Pa. "Robertson Rotating."
Rumsey's—Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Sanos—Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Schutte & Koerting Co., Philadelphia, Pa.
Schwander Brass Mfg. Co., St. Louis, Mo.
Scott, Michigan—Scott Valve & Mfg. Co., Detroit, Mich.
Strong—Strong, Carlisle & Hammond Co., Cleveland, O.
Toleda—Franklin Williams, Inc., Newark, N. J.
Union Disc, Model Star, White Star—The William Powell Co., Cincinnati, O.
United Brass Mfg. Co., Cleveland, O.
United States Air Compressor Co., Cleveland, O.
Walworth Company, Boston, Mass.
W. E. W.—William E. Williams Valve Corp., New York, N. Y.
Williams, D. T., Valve Co., Cincinnati, O. (Trade names—Reverso, Williams.)
Wolff Mfg. Corp., Chicago, Ill.
Wood & Co., R. D., Philadelphia, Pa.
Worthington Pump & Machine Corp., New York.

VALVES, BUTTERFLY.

Chapman Valve Mfg. Co., Indian Orchard, Mass.
Coldwell, Wilcox Co., Newburgh, N. Y.
Crane—Crane Co., Chicago, Ill.
Glenn Mfg. Co., St. Charles, Ill.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, O. (iron and brass).
North American Mfg. Co., The, Cleveland, O.
Powell Co., The Wm., Cincinnati, O.
Schutte—Schutte & Koerting Co., Philadelphia, Pa.
Walworth Company, Boston, Mass.

VALVES, BY-PASS.

Darling Valve & Mfg. Co., Williamsport, Pa.
Fairbanks—The Fairbanks Co., New York, N. Y.
Fisher Governor Co., Inc., The, Marshalltown, Iowa
Griscom-Russell Co., New York, N. Y.
Hydraulic Press Mfg. Co., The, Columbus, O. (high pressure). "H. P. M."
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Ludlow Valve Mfg. Co., The, Troy, N. Y.
Marsh, Jas. P., & Co., Chicago, Ill.
Mason—Mason Regulator Co., Boston, Mass.
Metalwood—Metalwood Mfg. Co., Detroit, Mich.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Powell Co., The Wm., Cincinnati, O.
Test-Tite—Test-Tite Co., Philadelphia, Pa.
Victor—The Lunkenheimer Co., Cincinnati, O.
Walworth Company, Boston, Mass.
Watson-Stillman Co., The, New York (hydraulic).
Worthington Pump & Machinery Corp., New York.

VALVES, CHECK, AIR.

Brunner Mfg. Co., Utica, N. Y.
Jenkins—Jenkins Bros., New York, N. Y.
McAlear Mfg. Co., Chicago, Ill.
Scott Valve & Mfg. Co., Detroit, Mich.

VALVES, CHECK, ANGLE, WITH UNION.

Commonwealth Brass Corp., Detroit, Mich.

VALVES, CHECK, BALL.

Central Automatic Sprinkler Co., Philadelphia, Pa.
Darling—The Darling Valve & Mfg. Co., Ltd., Williamsport, Pa.
Draper—The Draper Mfg. Co., Port Huron, Mich.
General Brass Company, Detroit, Mich.
Lunkenheimer Co., The, Cincinnati, O.
Powell Co., The Wm., Cincinnati, O.
Vogt, Henry, Machine Co., Louisville, Ky.

VALVES, CHECK, WITH DRIP COCK.

Fairbanks—The Fairbanks Co., New York, N. Y.
General Brass Company, Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Jenkins—Jenkins Bros., New York, N. Y.
Mount Morris Valve Corp., Mount Morris, N. Y.
Ohio Brass Co., Mansfield, O. "O-B."
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Powell, Wm., Co., The, Cincinnati, O.
Scott Valve & Mfg. Co., Detroit, Mich.
Walworth Company, Boston, Mass.

VALVES, CHECK, HYDRAULIC.

Ashton—The Ashton Valve Co., Cambridge, Mass.
Beifield Co., H., Philadelphia, Pa.
Caskey—Yarnall-Waring Co., Philadelphia, Pa.
Clean Seat—Pittsburgh Gage & Supply Co., Pittsburgh, Pa.

Chambersburg Engineering Co., Chambersburg, Pa.
Coffin—Coffin Valve Co., Boston, Mass.
Crane—Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Ltd., The, Williamsport, Pa.
Eastwood Wire Mfg. Co., Belleville, N. J.
Elmes, Chas. T., Engineering Works, Chicago, Ill.
Fairbanks—The Fairbanks Co., New York, N. Y.
Hydraulic Press Mfg. Co., The, Columbus, O. (high pressure). "H. P. M."
Homestead—Homestead Valve Mfg. Co., Homestead, Pa.
Jarecki Mfg. Co., Erie, Penna.
Jenkins—Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Ludlow—The Ludlow Valve Mfg. Co., Troy, N. Y.
Metalwood—Metalwood Mfg. Co., Detroit, Mich.
Powell, Wm., Co., The, Cincinnati, O.
Pratt & Cady—Reading Steel Casting Co., Inc., Bridgeport, Conn.
Rensselaer—Rensselaer Valve Co., Troy, N. Y
Riggin's—Watson & McDaniel Co., Philadelphia, Pa.
Ross Valve Mfg. Co., Troy, N. Y. "Trojan."
Scott Valve & Mfg. Co., Detroit, Mich.
Simmons Co., John, New York, N. Y.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Company, Boston, Mass.
Watson-Stillman Co., New York, N. Y.
Wood, William H., Media, Pa.
Wood & Co., R. D., Philadelphia, Pa.
Yarnall-Waring Co., Philadelphia, Pa. "Simplex."

VALVES, CHECK, IRON BODY.

American Safety Lamp & Mine Supply Co., Scranton, Pa.
American—American Valve Co., Coxsackie, N. Y.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Williamsport, Pa.
Duriron Co., Inc., Dayton, O.
Fairbanks—The Fairbanks Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Ludlow Valve Mfg. Co., Troy, N. Y.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Powell Co., The, Wm., Cincinnati, O.
Scott Valve & Mfg. Co., Detroit, Mich.
Walworth Company, Boston, Mass.
Ward-Love Pump Corp., Rockford, Ill. "Warlo."

VALVES, CHECK, LOCOMOTIVE LINE.

Edna Brass Mfg. Co., The, Cincinnati, Ohio.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."

VALVES, CHECK, REGRINDING.

Capitol Brass Works, Detroit, Mich.
Lunkenheimer Co., The, Cincinnati, O.
Mount Morris Valve Corp., Mount Morris, N. Y.
Powell, Wm., Co., The, Cincinnati, O.
Walworth Company, Boston, Mass.
Williams, D. T. Valve Co., The, Cincinnati, O.

VALVES, CHECK, STEEL.

Edward—The Edward Valve & Mfg. Co., East Chicago, Ind.
Jenkins Bros., New York, N. Y.
Metalwood—Metalwood Mfg. Co., Detroit, Mich.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Company, Boston, Mass. ("Sigma Steel.")

VALVES, CHECK, SWING.

American—American Valve Co., Coxsackie, N. Y.
Anderson—Golden-Anderson Valve Specialty Co., Pittsburgh, Pa.
Bayer—The Bayer Company, St. Louis, Mo.
Belknap Mfg. Co., The, Bridgeport, Conn.
Detroit Brass & Malleable Works, Detroit, Mich.
Eastwood Wire Mfg. Co., Belleville, N. J. "Eastwood."
Eddy—Eddy Valve Co., Waterford, N. Y.
Enterprise—D. A. Hinman & Co., Sandwich, Ill.
Eureka Brass Works, Inc., Cincinnati, O.
Fairbanks—The Fairbanks Co., New York, N. Y.
Hoffmann, B., Mfg. Co., Milwaukee, Wis.
Jenkins Bros., New York, N. Y.
Josam Mfg. Co., The, Michigan City, Ind.
Kennedy—The Kennedy Valve Mfg. Co., Elmira, N. Y.
Ludlow Valve Mfg. Co., The, Troy, N. Y.
Lunkenheimer Co., The, Cincinnati, O.
Milwaukee Valve Co., Milwaukee, Wis.
Mount Morris Valve Corp., Mount Morris, N. Y.
National Brass Mfg. Co., Rochester, N. Y.
Ohio Brass Co., Mansfield, O. "O-B."
"O. E." Rouse Patent—O. E. Specialty Mfg. Co., Milwaukee, Wis.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Pittsburgh Valve & Fittings Co., Barberton, O.
Powell Co., The, Wm., Cincinnati, O.
Pratt & Cady—Reading Steel Casting Co., Inc., Bridgeport, Conn.
Schwander Brass Mfg. Co., St. Louis, Mo.
Scott, Rouse—Scott Valve & Mfg. Co., Detroit, Mich.
Walworth Company, Boston, Mass.
Williams—The D. T. Williams Valve Co., Cincinnati, O.
Worthington Pump & Machinery Corp., New York, N. Y.

VALVES, CHECK, VERTICAL.

Belknap Mfg. Co., The, Bridgeport, Conn.
Brunner Manufacturing Co., Utica, N. Y.
Capitol Brass Works, Detroit, Mich.
Detroit Brass & Malleable Works, Detroit, Mich.
Eddy—Eddy Valve Co., Waterford, N. Y.
Fairbanks—The Fairbanks Co., New York, N. Y.
Haydenville Co., The, Haydenville, Mass.
Jenkins—Jenkins Bros., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, O.
Milwaukee Valve Co., Milwaukee, Wis.
Mount Morris Valve Corp., Mount Morris, N. Y.
Mueller Co., Decatur, Ill.
N. T. C.—National Tube Co., Pittsburgh, Pa.
Ohio Brass Co., Mansfield, O. "O-B."
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Penberthy Injector Co., Detroit, Mich.
Powell Co., The, Wm., Cincinnati, O.
Robertson, John F., Co., Pittsburgh, Pa. "Robertson."
Scott Valve & Mfg. Co., Detroit, Mich.
Swaby Mfg. Co., Chicago, Ill.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Company, Boston, Mass.
Williams—The D. T. Williams Valve Co., Cincinnati

VALVES, CHOKE, OIL LINE.

General Brass Company, Detroit, Mich.

VALVES, CHRONOMETER.

Defender Automatic Regulator Co., St. Louis, Mo.
Fisher Governor Co., The, Marshalltown, Iowa.
Fitts—Union Water Meter Co., The, Worcester, Mass.
McAlear Mfg. Co., The, Chicago, Ill.
R-K—Ruggles-Klingemann Mfg. Co., Salem, Mass. (Adjustable.)

VALVES, CIRCULATING, HOT WATER

L. S. D.—L. S. Dlugosch, Storm Lake, Iowa.

VALVES, CISTERN.

Exeter Brass Works, Exeter, N. H.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Wolff Mfg. Corp., Chicago, Ill.

VALVES, CLOSET VAULT.

Meerhoff, Wm., Richmond, Ind.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.

VALVES, COKE OVEN.

Cadman, A. W., Mfg. Co., Pittsburgh, Pa. "Cadman."
Hays Mfg. Co., Erie, Pa.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Pittsburgh—Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
Powell Co., The Wm., Cincinnati, O.
Walworth Company, Boston, Mass.

VALVES, COMPRESSED GAS CYLINDER.

Sherwood Mfg. Co., Buffalo, N. Y.

VALVES, CONTROLLING, WATERWORKS SUPPLY.

Midland Mfg. Co., Fort Worth, Tex. "Midland."
Nicholson, W. H. & Co., Wilkesbarre, Pa.
Simplex Valve & Meter Co., Philadelphia, Pa.

VALVES, CROSS, BRASS AND BRONZE.

Arrow—Star Brass Mfg. Co., Boston, Mass.
Crane—Crane Co., Chicago, Ill.
Fairbanks—The Fairbanks Co., New York, N. Y.
Garratt & Co., W. T., San Francisco, Cal.
General Brass Company, Detroit, Mich.
Hancock—Manning, Maxwell & Moore, Inc., New York, N. Y.
Jenkins—Jenkins Bros., New York, N. Y.
Kelly Self Grinding—Kelly Valve Co., Muskegon, Mich.
K. & M.—Kinsey & Mahler Co., Peoria, Ill
Lunkenheimer Co., The, Cincinnati, O. "Renewo."
McRae & Roberts Co., Detroit, Mich.
Milwaukee Valve Co., Milwaukee, Wis.
Model Star—Powell Co., The Wm., Cincinnati, O.
Mount Morris Valve Corp., Mount Morris, N. Y.
New Bedford Boiler & Machine Co., New Bedford, Mass.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Pittsburgh Valve & Fittings Co., Barberton, O.
Powell, Wm., Co., The, Cincinnati, O.
Scott Valve & Mfg. Co., Detroit, Mich.
Walworth Company, Boston, Mass.

KENNEDY

The Kennedy Valve Catalogue lists over five thousand types and sizes of valves and fittings to meet all usual and many special requirements. Send for a copy and keep it handy. Kennedy Valves are backed by fifty years of progressive experience and are built to give permanent satisfaction.

We also manufacture a complete line of standard cast iron flanged and malleable iron and brass screwed pipe fittings.

THE KENNEDY VALVE MANUFACTURING COMPANY, Elmira, N. Y.

SALES OFFICES: 128-132 White St., New York; 1335-37 S. Clinton St., Chicago; 47 India St., Boston; 448-450 Tenth St., San Francisco. Philadelphia, Atlanta, Cleveland, Salt Lake City, Seattle, El Paso, Los Angeles.
EXPORT OFFICES: Elmira, New York.

W. E. W.—William E. Williams Valve Corp., New York, N. Y.
The D. T. Williams Valve Co., Cincinnati. "Williams."

VALVES, CROSS, IRON BODY.

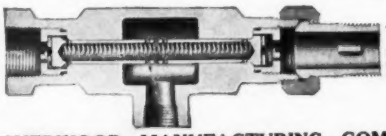
Fairbanks—The Fairbanks Co., New York, N. Y.
Garratt, W. T., & Co., Inc., San Francisco, Cal.
Haydenville Co., The, Haydenville, Mass.
Jenkins—Jenkins Bros., New York, N. Y.
Model Star—Powell, Wm., Co., The, Cincinnati, O.
New Bedford Valve Mfg. Co., New Bedford, Mass. "Whale."
Scott Valve & Mfg. Co., Detroit, Mich.
Walworth Company, Boston, Mass.
W. E. W.—William E. Williams Valve Corp., New York, N. Y.

VALVES, DISC, ANGLE AND GLOBE.

Ajax—Federal Brass Works, Chicago, Ill.
Capitol Brass Works, Detroit, Mich.
Commonwealth Brass Corp., Detroit, Mich.
Eastwood Wire Mfg. Co., Belleville, N. J.
Fairbanks—The Fairbanks Co., New York, N. Y.
Ferrenewo, Renewo—The Lunkenheimer Co., Cincinnati, O.
Hammond Brass Works, Hammond, Ind.
Haydenville Co., The, Haydenville, Mass.
Hoffmann Mfg. Co., B., Milwaukee, Wis.
Jenkins—Jenkins Bros., New York, N. Y.
Jenkins Type—American Valve Co., Coxsackie, N. Y.
H. Belfield Co., Philadelphia, Pa. "Just Right Guide."
Kelly Self Grinding—Kelly Valve Co., Muskegon, Mich.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Locke—Locke Regulator Co., Salem, Mass.
Loyal Brass Co., Cleveland, O.
Ludlow Valve Mfg. Co., The, Troy, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.
Mount Morris Valve Corp., Mount Morris, N. Y.
Nathan Mfg. Co., New York, N. Y.
N. T. C.—National Tube Co., Pittsburgh, Pa.
O-B—Ohio Brass Co., Mansfield, O.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Powell, Wm., Co., The, Cincinnati, O. "Union."
Powhatan Brass & Iron Works, Ranson, W. Va.
Rick—Rickersberg Brass Co., Cleveland, O.
Scott—Scott Valve & Mfg. Co., Detroit, Mich.

Michael Automatic Drain Valve

For Removal of Condensation from Steam Cylinders



Write for Bulletin

SHERWOOD MANUFACTURING COMPANY
1715 Elmwood Ave., Buffalo, N. Y.

SHERWOOD
A GOOD NAME TO REMEMBER WHEN BUYING POWER PLANT and INDUSTRIAL SPECIALTIES

Strong—Strong, Carlisle & Hammond Co., Cleveland, O.
Walworth Company, Boston, Mass.

VALVES, DOUBLE SEATED.

Fairbanks—The Fairbanks Co., New York, N. Y.
Marsh Valve Co., Dunkirk, N. Y.
Scott Valve & Mfg. Co., Detroit, Mich.

VALVES, DRAIN, STEAM CYLINDER.

Sherwood Mfg. Co., Buffalo, N. Y. "Michael."

VALVES, DRIP.

Chapman—Chapman Valve Mfg. Co., Indian Orchard, Mass.
Fairbanks—The Fairbanks Co., New York, N. Y.
General Brass Company, Detroit, Mich.
Lonergan—J. E. Lonergan Co., Philadelphia, Pa.
Ludlow—The Ludlow Valve Mfg. Co., Troy, N. Y.
Lunkenheimer Co., The, Cincinnati, O.
Powell, Wm., Co., The, Cincinnati, O.
Scott Valve & Mfg. Co., Detroit, Mich.

VALVES, DRY PIPE, AND CHECK FOR SPRINKLER SYSTEM.

Central Automatic Sprinkler Co., Philadelphia, Pa.
General Fire Extinguisher Co., New York, N. Y. "Grinnell G. F. E."
Globe Automatic Sprinkler Co, The, Cincinnati, O.
International—International Sprinkler Co., New York, N. Y.
Rockwood Sprinkler Co. of Massachusetts, Worcester, Mass. "Rockwood."

VALVES, ELECTRIC MOTOR OPERATED.

Bristol Co., The, Waterbury, Conn.
Chapman Valve Mfg. Co., The, Indian Orchard, Mass.
Coffin Valve Co., Boston, Mass. "Coffin."
Columbian Iron Works, Chattanooga, Tenn.
Electrite—Sundh Electric Co., Newark, N. J.
Everlasting—Everlasting Valve Co., Jersey City, N. J.
Fairbanks—The Fairbanks Co., New York, N. Y.
Jenkins—Jenkins Bros., New York.
Kennedy Valve Mfg. Co., Elmira, N. Y.
Liberty Electric Corp'n, Stamford, Conn.
Locke—Locke Regulator Co., Salem, Mass.
Ludlow—The Ludlow Valve Mfg. Co., Troy, N. Y.
Marvel—American Thermostat Co., Newark, N. J.
Mason Regulator Co., Boston, Mass.
Rensselaer—Rensselaer Valve Co., Troy, N. Y.
Schutte—Schutte & Koerting Co., Philadelphia, Pa.

VALVES, EXHAUST RELIEF, AUTOMATIC.

Cash, A. W., Valve Mfg. Corp., Decatur, Ill.
Edna Brass Mfg. Co., Cincinnati O.
Edward—Edward Valve & Mfg. Co., East Chicago, Ind.
Fairbanks—The Fairbanks Co., New York, N. Y.
Fisher Governor Co., Inc., Marshalltown, Iowa.
Foster—Foster Engineering Co., Newark, N. J.
Jenkins—Jenkins Bros., New York, N. Y.
Klipfel Mfg. Co., Chicago, Ill.
Lewis Steam Specialty & Valve Co., Philadelphia, Pa.
Scott Valve & Mfg. Co., Detroit, Mich.
Schutte & Koerting Co., Philadelphia, Pa.
Worthington Pump & Machinery Corp., New York.

VALVES, EXTRA HEAVY FOR HIGH PRESSURES.

Chapman—Chapman Valve Mfg. Co., Indian Orchard, Mass.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Ltd., The, Williamsport, Pa.

Eddy—Eddy Valve Co., Waterford, N. Y.
Fairbanks Co., The, New York, N. Y. "Fairbanks."
Homestead—Hammond Valve Mfg. Co., Homestead, Pa.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., Elmira, N. Y.
Ludlow Valve Mfg. Co., The, Troy, N. Y.
Mount Morris Valve Corp., Mount Morris, N. Y.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Pittsburgh Valve & Fittings Co., Barberton, O.
Pneumercator—Pneumercator Co., Inc., New York.
Powell Co., The, Wm., Cincinnati, O.
Rensselaer Valve Co., Troy, N. Y.
Scott—Scott Valve & Mfg. Co., Detroit, Mich.
Seattle Brass Co., Seattle, Wash.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Company, Boston, Mass.

VALVES, FAN ENGINE.

Fisher Governor Co., The, Marshalltown, Iowa.
Strong—Strong, Carlisle & Hammond Co., Cleveland, O.

VALVES, FEEDER, STEAM HEATING BOILER.

Nason Mfg. Co., New York, N. Y.

VALVES, FIRE LINE.

Ford—Ford Regulator Corp., New York, N. Y.
Jenkins—Jenkins Bros., New York, N. Y.

VALVES, FLAP AND SHEAR.

American Foundry & Mfg. Co., St. Louis, Mo.
American Spiral Pipe Works, Chicago, Ill.
Coldwell-Wilcox Co., Newburgh, N. Y.
Columbian Iron Works, Chattanooga, Tenn.
Eddy—Eddy Valve Co., Waterford, N. Y.
Ludlow Valve Mfg. Co., Troy, N. Y.

VALVES, FLOAT.

American Foundry & Mfg. Co., St. Louis, Mo.
Anderson—Golden-Anderson Valve Specialty Co. Pittsburgh, Pa.
Atlas—Atlas Valve Co., Newark, N. J.
Axtell—Axtell Co., Ft. Worth, Tex.
B. B.—Boston Brass Co., Waltham, Mass.
Belfield, H., Co., Philadelphia, Pa.
Bishop & Babcock Co., Cleveland, O.
Boylston Steam Specialty Co., Chicago, Ill.
Buffalo—Fries & Co., Buffalo, N. Y.
Caldwell Co., W. E., Louisville, Ky.
Chicago Engineer Supply Co., Chicago, Ill. "Tip Top."
Commonwealth Brass Corp., Detroit, Mich.
Davis—G. M. Davis Regulator Co., Chicago, Ill.
Eclipse—Illinois Engineering Co., Chicago, Ill.
Edna Brass Mfg. Co., The, Cincinnati, O.
Enterprise—D. A. Hinman & Co., Sandwich, Ill.
Everlasting Valve Co., Jersey City, N. J.
Exeter Brass Works, Exeter, N. H.
Fisher—Fisher Governor Co., Marshalltown, Iowa.
Ford—Ford Regulator Corp., New York, N. Y.
Foster—Foster Engineering Co., Newark, N. J.
Foster—Walworth Company, Boston, Mass.
Harris, Arthur, & Co., Chicago, Ill.
Hawkeye—Chandler Pump Co., Cedar Rapids, Ia.
Homestead—Homestead Valve Mfg. Co., Homestead, Pa.
Humphryes Mfg. Co., Mansfield, O.
I. X. L.—I. X. L. Pump & Mfg. Co., The, Philadelphia, Pa.
K. & T.—Klipfel Mfg. Co., Chicago, Ill.
Kieley & Muller, New York, N. Y. "Kieley."
Lewis Steam Specialty & Valve Co., Philadelphia, Pa. "Lewis."
Ludlow—The Ludlow Valve Mfg. Co., Troy, N. Y.
McAlear Mfg. Co., The, Chicago, Ill.
McDonald, A. Y., Mfg. Co., Dubuque, Ia. "Diamond," "Dubuque."
Mason—Mason Regulator Co., Boston, Mass.
Marsh, Jas. P., & Co., Chicago, Ill.
Midland Mfg. Co., Fort Worth, Texas. "Midland."
Modern Iron Works, Quincy, Ill.
Monash Younker Co., Chicago, Ill.
Muller Steam Specialty Co., Inc., New York, N. Y.
Peco—Pittsburgh Engineering Co., Jeannette, Pa.
Red Jacket—Red Jacket Mfg. Co., Davenport, Ia.
Ryan—Exeter Brass Works, Exeter, N. H.
Schade—Schade Valve Mfg. Co., Philadelphia, Pa.
Schutte—Schutte & Koerting Co., Philadelphia, Pa.
Simmons Co., John, New York, N. Y.
Texas Mfg. Co., Ft. Worth, Tex.
Ward-Love Pump Corp., Rockford, Ill. "Warlo."
Waters Governor Co., Boston, Mass.
Watts Regulator Co., Lawrence, Mass.
Western Mfg. Co., Oskaloosa, Ia.

VALVES, FLUID CONTROL.

Davis—G. M. Davis Regulator Co., Chicago, Ill.

VALVES, FLUSH, HYDRAULIC.

The Imperial Brass Mfg. Co., Chicago, Ill.
Kalamazoo Sanitary Mfg. Co., Kalamazoo, Mich.

VALVES, FLUSH, OIL CONTROLLED.

R-N-B Mfg. Co., Chicago, Ill. "R-N-B."

VALVES, FOOT, AND STRAINERS.

Abendroth & Root Mfg. Co., Newburgh, N. Y.
Alamo Iron Works, San Antonio, Tex. "Kuehne."
American Spiral Pipe Works, Chicago, Ill.
Bourbon—The Bourbon Copper & Brass Works, Cincinnati, O.
Boyts, Porter Co., Connellsville, Pa.
Brown, A. & F., Co., The, Elizabethport, N. J.
Coffin—Coffin Valve Co., Boston, Mass.
Cook, A. D., Inc., Lawrenceburg, Ind.
Crane Co., Chicago, Ill.
Davis, G. M., Regulator Co., Chicago, Ill.
Eddy Valve Co., Waterford, N. Y.
Emerson—The Emerson Pump & Valve Co., Alexandria, Virginia.
Flagg, Stanley G., & Co., Philadelphia, Pa.
Goulds Pumps, Inc., Seneca Falls, N. Y.
Haydenville Co., The, Haydenville, Mass.
Incline Seat—Greene, Schaw & Schaw Co., West Berkeley, Cal.
Ludlow—The Ludlow Valve Mfg Co., Troy, N. Y.
Lunkenheimer Co., Cincinnati, O.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Newbury, Jay H., & Son, Goshen, N. Y. (Flanged and screwed.)
Pittsburgh Valve & Fittings Co., Barberton, O.
Ravena Iron Co., Ravena, N. Y.
Rumsey's—Rumsey Pump Co., Ltd., Seneca Falls, N. Y.
Swaby Mfg. Co., Chicago, Ill.
Tokheim—Tokheim Oil Tank & Pump Co., Fort Wayne, Ind.
Walworth Company, Boston, Mass.
Ward-Love Pump Corp., Rockford, Ill. "Warlo."
Wood & Co., R. D., Philadelphia, Pa.
Worthington Pump & Machinery Corp., New York.

VALVES, GAS.

(See "Cocks, Gas," and "Valves, Globe," etc.)

VALVES, GAS, CUT-OFF, AUTOMATIC.

Mahrvel—Mahr Mfg. Co., Minneapolis, Minn.

VALVES, GAS PLANT.

Homestead—Homestead Valve Mfg. Co., Homestead, Pa.
Roots, P. H., & F. M., Co., Connersville, Ind.

VALVES, NATURAL GAS.

Clean Seat—Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
Columbus Brass Co., Columbus, O.
Darling Valve & Mfg. Co., Ltd., The, Williamsport, Pa.
Detroit Brass & Malleable Works, Detroit, Mich.
Fairbanks—The Fairbanks Co., New York, N. Y.
Farnan Brass Works, Cleveland, O.
Hays Mfg. Co., Erie, Pa.
Jenkins—Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Ludlow Valve Mfg. Co., The, Troy, N. Y. "Ludlow."
Ohio Brass Co., Mansfield, O. "O-B."
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Powell Co., The, Wm., Cincinnati, O.
Scott—Scott Valve & Mfg. Co., Detroit, Mich.
Siemen—Velte Foundry & Machine Co., Mars, Pa.
Zurn, J. A., Mfg. Co., Erie, Pa. (Trade names—Advance, Franklin).

VALVES, GAS REGULATING.

Atlas Valve Co., Newark, N. J.
Bristol Co., The, Waterbury, Conn.
Bryant—The Bryant Heater & Mfg. Co., Cleveland, Ohio.
Ernst & Co., Newark, N. J.
Fisher Governor Co., The, Marshalltown, Iowa.
Fulton—Chaplin Fulton Mfg. Co., Pittsburgh, Pa.
Haydenville Co., The, Haydenville, Mass.
Strong—The Strong, Carlisle & Hammond Co., Cleveland, Ohio.
Watson & McDaniel Co., Philadelphia, Pa.

VALVES, GAS RELIEF.

Fulton—Chaplin Fulton Mfg. Co., Pittsburgh, Pa.

VALVES, GAS, THERMOSTATIC.

Thermag—Sands Mfg. Co., Cleveland, O.

VALVES, GAS WATER HEATER.

Ever-Ready—Central Stamping Co., Inc., Detroit, Mich.

VALVES, GASOLINE.

Bashlin Co., The, Warren, Pa.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Homestead—Homestead Valve Mfg. Co., Homestead, Pa.

Standard—Acme Brass Works, Detroit, Mich. (packless, quick acting, for pumps).
Strong, Carlisle & Hammond Co., Cleveland, O., The (Blending.) "Strong."
Tokheim Oil Tank & Pump Co., Fort Wayne, Ind.

VALVES, GATE, ANGLE.

Eureka Brass Works, Inc., Cincinnati, O.
Jenkins—Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Powell Co., The Wm., Cincinnati, O.
Weimer—Weimer Machine Works, Lebanon, Pa.
Walworth Company, Boston, Mass.

VALVES, GATE, BRASS AND BRONZE.

A. H. S.—A. Harvey's Sons Mfg. Co., Ltd., Detroit.
Albany—Albany Steam Trap Co., Albany, N. Y.
American—American Foundry & Mfg. Co., St. Louis.
American—American Valve Co., Coxsackie, N. Y.
Belknap Mfg. Co., The, Bridgeport, Conn.
Bordo—L. J. Bordo Co., Philadelphia, Pa.
Bourbon Copper & Brass Works, The, Cincinnati, O. "Bourbon."
Capitol Brass Works, Detroit, Mich.
Central—The Central Brass Mfg. Co., Cleveland, O.
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., The, Ltd., Williamsport, Pa. "Darling."
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Eddy Pattern—Waterous Fire Engine Works, St. Paul, Minn.
Eddy Valve Co., Waterford, N. Y.
Edna Brass Mfg. Co., The, Cincinnati, O.
Eureka—Eureka Brass Works, Inc., Cincinnati, O.
Fairbanks—The Fairbanks Co., New York, N. Y.
Federal—Nason Mfg. Co., New York, N. Y.
Gaco—Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
Garratt's—W. T. Garratt & Co., Inc., San Francisco, Cal.
General Fire Extinguisher Co., New York, N. Y.
Hammond Brass Works, Hammond, Ind.
Hancock—Manning, Maxwell & Moore, Inc., New York, N. Y.
Haydenville Co., The, Haydenville, Mass.
Healey, Peter, Brass Foundry Co., Evansville, Ind.
Hoffmann Mfg. Co., B., Milwaukee, Wis.
Homestead Valve Mfg. Co., Homestead, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Jarecki Mfg. Co., Erie, Penna.
Jenkins—Jenkins Bros., New York, N. Y.
Kennedy—Kennedy Valve Mfg. Co., Elmira, N. Y.
Lenticular—Kennedy Valve Mfg. Co., Elmira, N. Y.
Loyal Brass Co., Cleveland, O.
Ludlow—The Ludlow Valve Mfg. Co., Troy, N. Y.
Lunkenheimer Co., The, Cincinnati, O.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Marsh Valve Co., Dunkirk, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.
Model, Star—The Wm. Powell Co., Cincinait, O.
Mount Morris Valve Corp., Mount Morris, N. Y.
Nichol, Thos. J., Co., The, Cincinnati, O.
Ohio Brass Co., Mansfield, O. "O-B."
O. K.—Kennedy Valve Mfg. Co., Elmira, N. Y.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Pioneer Alloy Products Co., Cleveland, O.
Pittsburgh—Pittsburgh Gage & Supply Co., Pittsburgh.
Pratt & Cady—Reading Steel Casting Co., Inc., Bridgeport, Conn.
Rensselaer—Rensselaer Valve Co., Troy, N. Y
Richardson-Phenix Co., Milwaukee, Wis.
Rick—Rickersberg Brass Co., Cleveland, O.
Rothchild—John Simmons Co., New York, N. Y.
Schutte—Schutte & Koerting Co., Philadelphia, Pa.
Schwander—Schwander Brass Mfg. Co., St. Louis, Mo.
Scott Valve & Mfg. Co., Detroit, Mich. (Trade names—Michigan, Scott.)
Smith, A. P., Mfg. Co., East Orange, N. J.
Star Brass Mfg. Co., Boston, Mass. "Monogram."
Trump Mfg. Co., Springfield, O. "Trump."
U. S.—The Wm. Powell Co., Cincinnati, O.
Utica Valve and Fixture Co., Utica, N. Y.
Walworth Company, Boston, Mass. (Trade names—Kebo, Federal, Walworth.)
White Star—The Wm. Powell Co., Cincinnati, O.
Wilfert, John, Co., New York, N. Y.
Williams—The D. T. Williams Valve Co., Cincinnati.
Wood & Co., R D., Philadelphia Pa.

VALVES, GATE, CAST STEEL.

Crane Co., Chicago, Ill.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, O.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Reading—Reading Steel Casting Co., Inc., Bridgeport, Conn.
Schutte & Koerting Co., Philadelphia, Pa.
Sigma Steel—Walworth Company, Boston, Mass.

VALVES, GATE, HYDRAULIC.

Darling Valve & Mfg. Co., Ltd., The, Williamsport, Pa.
Eddy—Eddy Valve Co., Waterford, N. Y.
Fairbanks—The Fairbanks Co., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Powell Co., The Wm., Cincinnati, O.
Pratt & Cady—Reading Steel Casting Co., Inc., Bridgeport, Conn.
Rensselaer—Rensselaer Valve Co., Troy, N. Y.
Scott Valve & Mfg. Co., Detroit, Mich.
Trump—Trump Mfg. Co., Springfield, O.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Company, Boston, Mass.

VALVES, GATE, IRON BODY.

American District Steam Co., North Tonawanda, N. Y.
American—American Foundry & Mfg. Co., St. Louis, Missouri.
American Valve Co., Coxsackie, N. Y.
Chapman Valve Mfg. Co., Indian Orchard, Mass.
Columbian Iron Wks., Chattanooga, Tenn. "Columbian."
Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., Ltd., The, Williamsport, Pa.
Detroit Brass & Malleable Works, Detroit, Mich.
Eddy Valve Co., Waterford, N. Y.
Fairbanks—The Fairbanks Co., New York, N. Y.
Homestead Valve Mfg. Co., Homestead, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Iowa Valve Co., Oskaloosa, Ia.
Jenkins—Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., Elmira, N. Y.
Lancaster Iron Works, Inc., Lancaster, Pa.
Lunkenheimer Co., The, Cincinnati, O. "Clip." "Victor."
Ludlow Valve Mfg. Co., The, Troy, N. Y. "Ludlow."
Marsh Valve Co., Dunkirk, N. Y.
Materne, John P., Mfg. Co., St. Louis, Mo.
Mount Morris Valve Corp., Mount Morris, N. Y.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Pittsburgh Gage & Supply Co., Pittsburgh, Pa. "Pittsburgh."
Powell, Wm., Co., The, Cincinnati, O.
Pratt & Cady—Reading Steel Casting Co., Inc., Bridgeport, Conn.
Rensselaer Valve Co., Troy, N. Y.
Scott Valve & Mfg. Co., Detroit, Mich.
Schutte—Schutte & Koerting Co., Philadelphia, Pa.
Simplex—Pittsburgh Valve & Fittings Co., Barberton, Ohio.
Steere Engineering Co., The, Detroit, Mich.
Walworth Company, Boston, Mass.
Wilfert, John, Co., New York, N. Y.
Williams, D. T., Valve Co., Cincinnati, O. "Cino."
Wood & Co., R. D., Philadelphia, Pa.

VALVES, GATE, LEVER.

(See "Valves, Quick-opening.")

VALVES, GATE, QUICK OPENING.

Looseat—Everlasting Valve Co., Jersey City, N. J.
Mount Morris Valve Corp., Mount Morris, N. Y.
Williams—The D. T. Williams Valve Co., Cincinnati, O.

VALVES, GATE, WATERWORKS AND GEARED.

Chapman Valve Mfg. Co., Indian Orchard, Mass.
Coffin Valve Co., Boston, Mass.
Crane Co., Chicago, Ill.
Fairbanks—The Fairbanks Co., New York, N. Y.
Fox & Co., John, New York, N. Y.
Jenkins—Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., Elmira, N. Y.
Ludlow—Ludlow Valve Mfg. Co., Troy, N. Y.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Pittsburgh Valve & Fittings Co., Barberton, O.
Powell Wm., Co., The, Cincinnati, O.
Rensselaer Valve Co., Troy, N. Y.
Walworth Company, Boston, Mass.

VALVES, GATE, WEDGE.

Darling Valve & Mfg. Co., The, Williamsport, Pa.
Fairbanks—The Fairbanks Co., New York, N. Y.
Federal—Walworth Company, Boston, Mass.
Jenkins—Jenkins Bros., New York, N. Y.
Ludlow Valve Mfg. Co., The, Troy, N. Y. "Ludlow."
Mount Morris Valve Corp., Mount Morris, N. Y.
Newtype—Kennedy Valve Mfg. Co., Elmira, N. Y.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Powell, Wm., Co., The, Cincinnati, O.
Rensselaer Valve Co., Troy, N. Y.
Resisto Pipe & Valve Co., East Cambridge, Mass. "Resisto."
Scott Valve & Mfg. Co., Detroit, Mich.
Wood & Co., R. D., Philadelphia, Pa.

ILLINOIS MALLEABLE IRON CO.

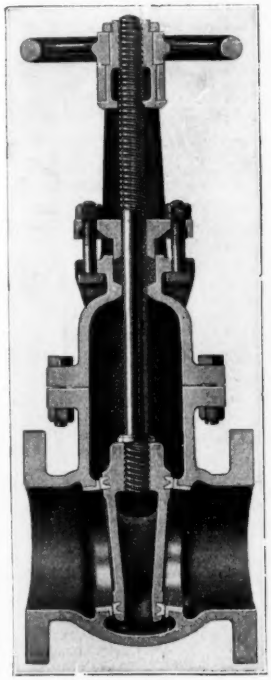
GENERAL OFFICES, 1801 DIVERSEY PARKWAY

CHICAGO, ILL.

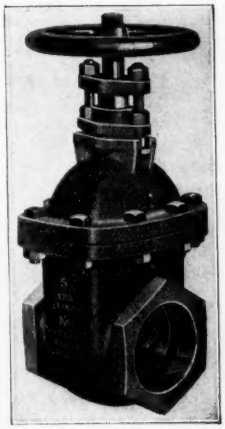
Iron Body Brass Mounted Gate Valves

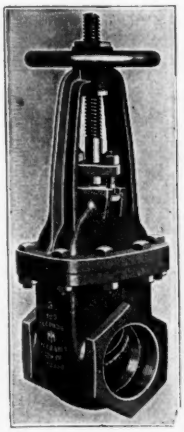
125 lbs. Steam Pressure **175 lbs. Water Pressure** **Screwed, Flanged and Hub Ends**

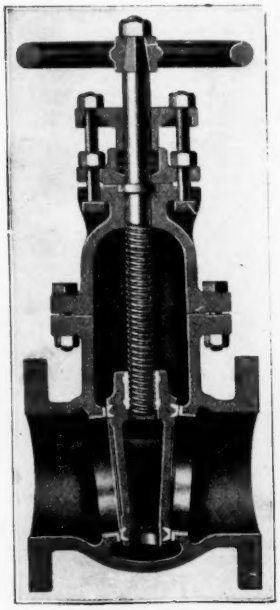
Sizes—2 to 12 Inches Inclusive



Sectional View
O. S. & Y. Valve







Sectional View
Non Rising Stem Valve

These Valves are all tested before leaving our plant. Properly distributed weight insures long service. They have malleable iron wheels, malleable iron glands and crucible bronze stems. Length of thread in wheel nut, depth of stuffing box, size of spindles and corrugated packing surfaces all contribute to long life of valves. They are in every respect

"VALVES OF QUALITY"

Pipe Fittings

in both Cast Iron and Malleable Iron

Standard and Extra Heavy
Screwed and Flanged

Malleable Castings
Made from Customers' Patterns

THE MARK

IDENTIFYING
I M I C O
PRODUCTS

ILLINOIS MALLEABLE IRON CO., CHICAGO, ILL.

VALVES, GENERATOR, FOR GASOLINE ENGINES.

Essex Brass Corp., Detroit, Mich.
Nonpareil—The Lunkenheimer Co., Cincinnati, O.
Powell, Wm., Co., The, Cincinnati, O.

VALVES, GLOBE, BRASS.

(See "Valves, Brass".)

VALVES, GLOBE, CAST STEEL.

B. & O. Protected Seat—Homestead Valve Mfg. Co., Homestead, Pa.
Edward—The Edward Valve & Mfg. Co., East Chicago, Ind.
Hancock—Manning, Maxwell & Moore, Inc., New York, N. Y.
Reading—Reading Steel Casting Co., Inc., Bridgeport, Conn.
Vogt, Henry, Machine Co., Louisville, Ky.
W. E. W.—William E. Williams Valve Corp., New York, N. Y.
Walworth Company, Boston, Mass. "Sigma."

VALVES, GLOBE, IRON BODY.

B. & O. Protected Seat—Homestead Valve Mfg. Co., Homestead, Pa.
Crane—Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Fairbanks—The Fairbanks Co., New York, N. Y.
Garrett & Co., W. T., San Francisco, Cal.
Hancock—Manning, Maxwell & Moore, Inc., New York, N. Y.
Hoffmann, B., Mfg. Co., Milwaukee, Wis.
Iroverso—D. T. Williams Valve Co., Cincinnati, O.
Jenkins—Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, O.
Materne, John P., Mfg. Co., St. Louis, Mo.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Pittsburgh Valve & Fittings Co., Barberton, O.
Powell Co., The, Wm., Cincinnati, O.
Scott Valve & Mfg. Co., Detroit, Mich.
Star Brass Mfg. Co., Boston, Mass. "Star."
United Injector Co., New York, N. Y.
W. E. W.—Wm. E. Williams Valve Corp., New York, N. Y.
Walworth Company, Boston, Mass.

VALVES, GLOBE, LOCK AND SHIELD

Capitol Brass Works, Detroit, Mich.
Commonwealth Brass Corp., Detroit, Mich.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit—Detroit Lubricator Co., Detroit, Mich.
The Fairbanks Co., New York, N. Y. "Fairbanks."
Haydenville Co., The, Haydenville, Mass.
Hays Mfg. Co., Erie, Pa.
Jenkins—Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Marsh Valve Co., Dunkirk, N. Y.
Milwaukee Valve Co., Milwaukee.
O-B—Ohio Brass Co., Mansfield, O.
Powell, Wm., Co., The, Cincinnati, O.
Scott—Scott Valve & Mfg. Co., Detroit, Mich.
Walworth Company, Boston, Mass.

VALVES, GLOBE, REGRINDING.

B. & O. Protected Seat—Homestead Valve Mfg. Co., Homestead, Pa.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Eastwood Wire Mfg. Co., Belleville, N. J. "Belleville."
Fairbanks—The Fairbanks Co., New York, N. Y.
I. B. G.—Pittsburgh Valve & Fittings Co., Barberton, O.
Jarecki Mfg. Co., Erie, Penna.
Jenkins—Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, O.
Model Star—The Wm. Powell Co., Cincinnati, O.
N. T. C.—National Tube Co., Pittsburgh, Pa.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Scott—Scott Valve & Mfg. Co., Detroit, Mich.
Schade Valve Mfg. Co., Philadelphia, Pa.
Simmons, John, Co., New York, N. Y.
Union Disc—The Wm. Powell Co., Cincinnati, O.
W. E. W.—Wm. E. Williams Valve Corp., New York N. Y.
Walworth Company, Boston, Mass.
White Star—Powell Co., The Wm., Cincinnati, O.
Williams, D. T., Valve Co., The, Cincinnati, O.

VALVES, GOVERNING, METRONOME.

Union Water Meter Co., Worcester, Mass.

VALVES, HARD BRONZE.

Jenkins—Jenkins Bros., New York, N. Y. (with monel metal seat rings and discs; extra heavy for superheated steam).
Mount Morris Valve Corp., Mount Morris, N. Y.

VALVES, HIGH PRESSURE, FOR OXYGEN AND CARBONIC ACID GAS.

Burdett Mfg. Co., Chicago, Ill.
International Oxygen Co., Newark, N. J.
Sherwood—Sherwood Mfg. Co., Buffalo, N. Y.

VALVES, HOSE.

American—American Valve Co., Coxsackie, N. Y. (gate and angle.)
American Foundry & Mfg. Co., St. Louis. (Trade names—California, Chicago Pattern, National, Western.)
Belknap Mfg. Co., The, Bridgeport, Conn.
Callahan Co., The Cornelius, Boston, Mass.
Chapman Valve Mfg. Co., Indian Orchard, Mass.
Chicago, New York & California Patterns—Elkhart Brass Mfg. Co., Elkhart, Ind.
Chicago Pattern—H. B. Sherman Mfg. Co., Battle Creek, Mich.
Darling Valve & Mfg. Co., Williamsport, Pa.
Eddy—Eddy Valve Co., Waterford, N. Y.
Fairbanks—The Fairbanks Co., New York, N. Y.
Fries & Co., Buffalo, N. Y.
Haydenville Co., The, Haydenville, Mass.
Jenkins—Jenkins Bros., New York, N. Y.
Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Jiffy—The Jiffy Fire Hose Rack Co., New York, N. Y.
Kennedy Valve Mfg. Co., Elmira, N. Y. "Lenticular."
Knox—Knox Manufacturing Co., Philadelphia, Pa.
Krenz, Oscar, Copper & Brass Works, Inc., San Francisco, Cal.
Ludlow—The Ludlow Valve Mfg. Co., Troy, N. Y.
Lunkenheimer Co., The, Cincinnati, O. (gate.)
Milwaukee Brass Mfg. Co., Milwaukee, Wis.
Mount Morris Valve Corp., Mount Morris, N. Y.
Oberndorf Mfg. Co., Pittsburgh, Pa.
Pittsburgh Valve & Fittings Co., Barberton, O.
Powell Co., The, Wm., Cincinnati, O. (angle, gate, globe, check, safety.)
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Rensselaer—Rensselaer Valve Co., Troy, N. Y.
Schlangen Bros. Co., Chicago, Ill. (Trade names—California Pattern, Chicago Pattern.)
Scott—Scott Valve & Mfg. Co., Detroit, Mich.
Seattle Brass Co., Seattle, Wash.
Street & Kent Mfg. Co., Chicago, Ill.
Underwriters' Approved—The Kennedy Valve Mfg. Co., Elmira, N. Y.
Walworth Company, Boston, Mass.
Williams—The D. T. Williams Valve Co., Cincinnati, O.

VALVES, HOT BLAST.

Glasgow Iron Co., Pottstown, Pa.

VALVES, HYDRANT.

American Foundry & Mfg. Co., St. Louis, Mo.
American Railway Hydrant & Valve Co., Stapleton, S. I., N. Y.
Ashton Valve Co., Cambridge, Mass.
Boston Woven Hose & Rubber Co., Cambridge, Mass.
Callahan Co., The Cornelius, Boston, Mass.
Chambersburg Engineering Co., Chambersburg, Pa.
Elkhart Brass Mfg. Co., Elkhart, Ind.
Exeter Brass Works, Exeter, N. H.
Heims—B. Hoffmann Mfg. Co., Milwaukee, Wis.
Hydraulic Press Mfg. Co., The, Columbus, O. "H-P-M."
Larkin—Larkin Mfg. Co., Dayton, O.
Walworth Company, Boston, Mass.

VALVES, HYDRAULIC.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Anker Engineering Co., Philadelphia, Pa.
Burroughs, Chas., Co., The, Newark, N. J.
Chambersburg Engineering Co., Chambersburg, Pa.
Darling Valve & Mfg. Co., Williamsport, Pa.
Dunning & Boschert Press Co., Inc., Syracuse, N. Y.
Elmes, Charles F., Engineering Works, Chicago, Ill.
Fairbanks—The Fairbanks Co., New York, N. Y.
Hercules—The D. T. Williams Valve Co., Cincinnati, O.
Homestead Valve Mfg. Co., Homestead, Pa.
Hydraulic Press Mfg. Co., The, Columbus, O. (high pressure). "H. P. M."
Jenkins Bros., New York, N. Y.
Johnson—The Larner-Johnson Valve & Engineering Co., Philadelphia, Pa.
Kennedy Valve Mfg. Co., Elmira, N. Y.
Lonergan—J. E. Lonergan Co., Philadelphia, Pa.
M—Metalwood Mfg. Co., Detroit, Mich.
Powell Co., The, Wm., Cincinnati, O. (globe, angle and cross).
Pratt & Cady—Reading Steel Casting Co., Bridgeport, Conn. (gates and checks).
Rensselaer Valve Co., Troy, N. Y.
Riggin's—Watson & McDaniel Co., Philadelphia, Pa.
Scott Valve & Mfg. Co., Detroit, Mich.
Schutte—Schutte & Koerting Co., Philadelphia, Pa.

Whatever You Build You Need Walworth

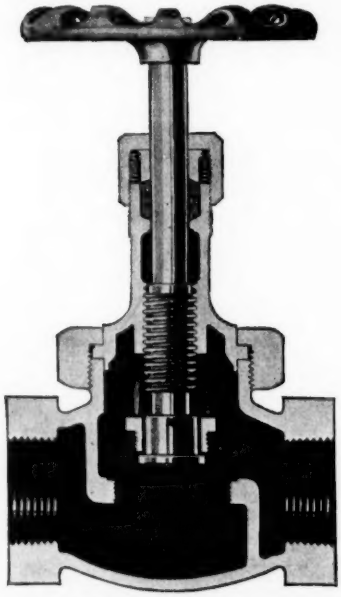
Walworth manufactures and distributes a complete line of brass, iron and steel pipe fittings and valves for the control of steam, water, gas, air and oil, including

WALWORTH (Trade) WS SIGMA STEEL (Mark)

for Working Steam Pressures ranging up to 1350 pounds per square inch at a total temperature of 750° F. and hot oil and vapor working pressures ranging up to 1100 pounds per square inch at a temperature of 1000° F.

REGRINDING AND RENEWABLE SEAT VALVE

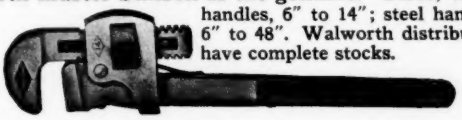
Suitable for Working Steam Pressures from 200 to 300 pounds live or superheated steam. The seat and disc are made of a nickel-copper alloy and so constructed as to permit of easy removal for renewal purposes. Furnished in sizes ¼" to 4" inclusive.



"WALWORTH 200" REGRINDING VALVE RENEWABLE SIGMALLOY SEAT AND DISC

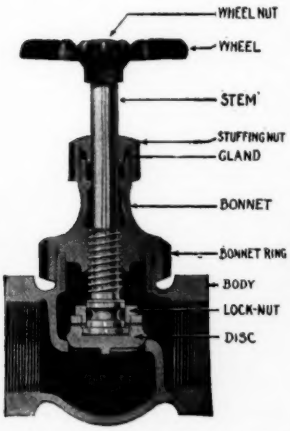
WALWORTH MASTER STILLSON

The NEW MASTER STILLSON, with stronger and tougher bar, jaw and teeth, under test has shown upwards of 50 per cent greater strength than any pipe wrench on the market. No change in the basic design, patented by Dan Stillson in 1869. The Diamond trade mark identifies the Walworth Master Stillson as the genuine. Sizes, wood handles, 6" to 14"; steel handles, 6" to 48". Walworth distributors have complete stocks.



WALWORTH KEWANEE REGRINDING VALVE

For Working Steam Pressures Sizes 1¼" and smaller, 225 pounds. Sizes 1½" to 3" inclusive, 200 pounds. The body is short and heavy with ample threadway to resist distortion in making on to pipe or by the sagging of the pipe line. The convex seat and disc provide a continuous contact and insure a tight valve. All parts are made interchangeable.



WALWORTH KEWANEE REGRINDING VALVE

WALWORTH KEWANEE UNIONS

"The Air Tested Union with No Inserted Parts"

Kewanee Unions have three parts and five reasons in their favor.

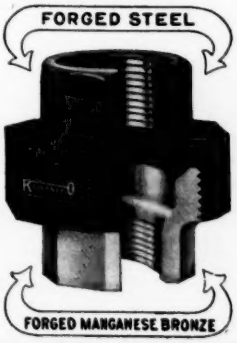
(1) Forged Bronze to Malleable Iron thread connection — no corrosion.

(2) Forged Bronze to Forged Steel ball joint seat—no gasket.

(3) Extreme compressed air test under water—no defective fittings.

(4) Solid three piece construction—no inserted parts.

(5) Easily disconnected —no force required.



WALWORTH KEWANEE UNION

WALWORTH COMPANY

General Offices
Boston, Mass., U. S. A.

General Sales Offices
51 E. 42nd St., New York City

Plants at

BOSTON KEWANEE, ILL. ATTALLA, ALA. GREENSBURG, PA.

DISTRIBUTORS IN THE PRINCIPAL CITIES OF THE WORLD

Foreign Representative: WALWORTH INTERNATIONAL CO., 44 Whitehall St., New York

Shriver, T., & Co., Harrison, N. J. "Shriver."
Toleda—Franklin Williams, Inc., Newark, N. J.
Trojan—Ross Valve Mfg. Co., Inc., Troy, N. Y.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Company, Boston, Mass.
Watson-Stillman Co., New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, O.

VALVES, HYDRAULICALLY OPERATED.

B. & O. Protected Seat—Homestead Valve Mfg. Co., Homestead.
Chambersburg Engineering Co., Chambersburg, Pa.
Columbian Iron Works, Chattanooga, Tenn.
Fairbanks—The Fairbanks Co., New York, N. Y.
Hydraulic Press Mfg. Co., The, Columbus, O. (high pressure). "H. P. M."
Homestead—Homestead Valve Mfg. Co., Homestead.
Jenkins Bros.—Jenkins Bros., New York.
Kennedy Valve Mfg. Co., Elmira, N. Y.
Ludlow Valve Mfg. Co., The, Troy, N. Y.
Riggins—Watson & McDaniel Co., Philadelphia, Pa.
Robertson—John F. Robertson Co., Pittsburgh, Pa.
Schutte & Koerting Co., Philadelphia, Pa.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Yarnall-Waring Co., Philadelphia, Pa. "Yarway-Caskey."

VALVES, INDICATOR.

American—American Lubricator Co., Detroit, Mich.
Bourbon Copper & Brass Works Co., Cincinnati, O.
Chapman—Chapman Valve Mfg. Co., Indian Orchard, Mass.
Corey—Rensselaer Valve Co., Troy, N. Y. (post).
Darling Valve & Mfg. Co., The, Williamsport, Pa.
Eddy—Eddy Valve Co., Waterford, N. Y. (post).
Essex Brass Corp., Detroit, Mich.
Fairbanks—The Fairbanks Co., New York, N. Y.
Homestead—Homestead Valve Mfg. Co., Homestead, Pa.
Jenkins—Jenkins Bros., New York, N. Y.
Kennedy—The Kennedy Valve Mfg. Co., Elmira, N. Y.
Ludlow Valve Mfg. Co., Troy, N. Y.
Scott Valve & Mfg. Co., Detroit, Mich. "Michigan."
Milwaukee Valve Co., Milwaukee, Wis.
National—American Foundry & Mfg. Co., St. Louis, Mo.
National Brass Mfg. Co., Rochester, N. Y.
Powell, Wm., Co., The, Cincinnati, O.
Scott Valve & Mfg. Co., Detroit, Mich. "Scott."
Underwriters—The Kennedy Valve Mfg. Co., Elmira, N. Y. (post).
Victor—The Lunkenheimer Co., Cincinnati, O.
Walworth Company, Boston, Mass.
Wood, R. D., & Co., Philadelphia, Pa.

VALVES, INLET, FOR AUTOMATIC URINAL TANKS.

Sherwood Brass Works, Detroit, Mich.

VALVES, INLET, PACKLESS

Sarco—Sarco Co., Inc., New York, N. Y.
Thermoflex—W. D. Cashin, Boston, Mass.

VALVES AND FITTINGS, IRRIGATING.

American Foundry & Mfg. Co., St. Louis, Mo.
Sacramento Pipe Works, Sacramento, Cal.
Seattle Brass Co., Seattle, Wash.

VALVES, KNEE.

Tessmer Machine & Tool Co., Detroit, Mich.

VALVES, LEAD AND LEAD LINED.

Lead Lined Iron Pipe Co., Wakefield, Mass.
Resisto Pipe & Valve Co., East Cambridge, Mass. "Resisto."
Schutte—Schutte & Koerting Co., Philadelphia, Pa.
United Lead Co., New York, N. Y.
United Lined Tube & Valve Co., Boston, Mass.

VALVES, LEATHER.

Algco—Auburn Leather Goods Co., Hartford, Conn.
The L. J. Barwood Mfg. Co., Stoneham, Mass. "Barwood."
Bell, Andrew, Estate of, Newark, N. J.
Bonner & Barnewall, Inc., New York, N. Y.
Chicago Rawhide Mfg. Co., The, Chicago, Ill.
Excelsior Leather Washer Mfg. Co., Rockford, Ill. "X L."
Graton & Knight Co., Worcester, Mass.
Judd & Leland Mfg. Co., Clifton Springs, N. Y.
Kendrick Valve & Washer Co., Syracuse, N. Y.
Marston, I. G., & Co., Boston, Mass.
Norwich Belt Mfg. Co., Norwich, Conn.
Sutherland Leather & Felt Co., Detroit, Mich.
Vim—E. F. Houghton & Co., Philadelphia, Pa.

VALVES, LOCKING.

Homestead—Homestead Valve Mfg. Co., Homestead, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Monash-Younker Co., Chicago, Ill.
Sterling—Sterling Faucet Co., Newcomerstown, O.

VALVES, LUBRICATED, LOCKING.

Homestead Valve Mfg. Co., Inc., Homestead, Pa.

VALVES, MARINE.

Everlasting Valve Co., Jersey City, N. J.
Jenkins—Jenkins Bros., New York, N. Y.
Mount Morris Valve Corp., Mount Morris, N. Y.
Scott Valve & Mfg. Co., Detroit, Mich.
Walworth Company, Boston, Mass.

VALVES, MIXING.

(See "Cocks and Valves, Mixing.")

VALVES, MOTOR OPERATED.

Walworth Company, Boston, Mass.

VALVES, MUD.

Coffin—Coffin Valve Co., Boston, Mass.

VALVES, NEEDLE.

Brunner—Brunner Mfg. Co., Utica, N. Y.
C. C.—Crane Co., Chicago, Ill.
Champion Pneumatic Machinery Co., Chicago, Ill.
Defiance Packless Valve & Mfg. Co., Quincy, Ill. "Defiance."
Detroit Brass & Malleable Works, Detroit, Mich.
The Dole—The Dole Valve Co., Chicago, Ill.
Eastwood—Eastwood Wire Mfg. Co., Belleville, N. J
General Brass Company, Detroit, Mich.
Lunkenheimer Co., The, Cincinnati, O.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Milwaukee Valve Co., Milwaukee, Wis.
Mount Morris Valve Corp., Mount Morris, N. Y.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Powell Co., The Wm., Cincinnati, O.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Standard Brass Works, Detroit, Mich.
United States Air Compressor Co., Cleveland, O.
United—United Brass Mfg. Co., Cleveland, O.
Walworth Company, Boston, Mass.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

VALVES, NICKEL.

American Nickel Corp., Pittsburgh, Pa.

VALVES, OFFSET.

Columbian Iron Works, Chattanooga, Tenn.
Crane—Crane Co., Chicago, Ill.
Jenkins—Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Marsh Valve Co., Dunkirk, N. Y.
O-B—Ohio Brass Co., Mansfield, O.
Powell, Wm., Co., The, Cincinnati, O.

VALVES, OIL.

Darling Valve & Mfg. Co., Williamsport, Pa.
Eddy Valve Co., Waterford, N. Y.
Ernst & Co., Newark, N. J. "Ernst."
Everlasting Valve Co., Jersey City, N. J.
Homestead—Homestead Valve Mfg. Co., Homestead, Pa.
Jenkins—Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., Elmira, N. Y.
Ludlow—The Ludlow Valve Mfg. Co., Troy, N. Y.
McDonald Mfg. Co., A. Y., Dubuque, Iowa.
Mount Morris Valve Corp., Mount Morris, N. Y.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Powell, Wm., Co., The, Cincinnati, O.
Scott Valve & Mfg. Co., Detroit, Mich.
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Company, Boston, Mass.

VALVES, FOR OIL BURNING FURNACES.

Cornell & Underhill, New York, N. Y.
Defiance Packless Valve & Mfg. Co., Quincy, Ill. "Defiance."
Homestead—Homestead Valve Mfg. Co., Homestead, Pa.
Lalor Fuel Oil System Co. of Md., Inc., Baltimore, Md
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Powell—The Wm. Powell Co., Cincinnati, O.
W. E. W.—Wm. E. Williams Valve Corp., New York, N Y
Walworth Company, Boston, Mass.
Witt, G. E., Co., Inc., San Francisco, Cal. "Witts."

VALVES, OILER.

Knox—Knox Mfg. Co., Inc., Philadelphia, Pa.

VALVES, PLUG.

Barco—Barco Mfg. Co., Chicago, Ill.
Bordo—L. J. Bordo Co., Philadelphia, Pa.
Coldwell-Wilcox Co., Newburgh, N. Y.
Fairbanks—The Fairbanks Co., New York, N. Y.
Gato—A. W. Cadman Mfg. Co., Pittsburgh, Pa.
Homestead Valve Mfg. Co., Homestead, Pa.
Merco Nordstrom—The Merco Nordstrom Plug Valve Co., San Francisco, Calif.
Pittsburgh Valve & Fittings Co., Barberton, O.
Toleda—Franklin Williams, Inc., Newark, N. J.

VALVES, PISTON

Klinger—Klingerit, Inc., New York, N. Y.

VALVES, POP SAFETY.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Ashton—The Ashton Valve Co., Cambridge, Mass.
Capitol Brass Works, Detroit, Mich.
Consolidated—The Consolidated Safety Valve Co., New York, N. Y.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Edward Valve & Mfg. Co., East Chicago, Ind. "Edward."
Garratt, W. T. & Co., Inc., San Francisco, Cal.
General Brass Company, Detroit, Mich.
Hydraulic Press Mfg. Co., The, Columbus, O. (high pressure). "H. P. M."
Kunkle Valve Co., Ft. Wayne, Ind.
Lonergan, J. E., Co., Philadelphia, Pa.
Midget (Lloyd Pattern), Twin, Duplex—Lunkenheimer Co., The, Cincinnati, O.
Powell Co., The Wm., Cincinnati, O.
Scott Valve & Mfg. Co., Detroit, Mich.
United States Gauge Co., New York, N. Y.
Walworth Company, Boston, Mass.
Western Automatic Machine Screw Co., The, Elyria, Ohio.

VALVES, PRESSURE REDUCING AND REGULATING.

(See also "Regulators, Pressure.")

Anderson—Golden-Anderson Valve Specialty Co., Pittsburgh, Pa.
Atlas—Atlas Valve Co., Newark, N. J.
Atlas—Hall Mfg. Co., Harrison, N. J.
Beats All, New Era, Old Reliable—Locke Regulator Co., Salem, Mass.
Belfield Co., H., Philadelphia, Pa.
Bishop & Babcock Co., Cleveland, O.
Boylston—Boylston Steam Specialty Co., Chicago, Ill.
Brunner Manufacturing Co., Utica, N. Y.
Cash Acme—A. W. Cash Valve Mfg. Corp., Decatur, Ill.
Cash Standard—A. W. Cash Company, Decatur, Ill.
Crane Co., Chicago, Ill.
Curtis—Julian d'Este Co., Boston, Mass.
Davis—G. M. Davis Regulator Co., Chicago, Ill.
Defender Automatic Regulator Co., St. Louis, Mo.
C. A. Dunham Co., Inc., Chicago, Ill. "Dunham."
Edward Valve & Mfg. Co., The, East Chicago, Ind. "Edward."
Figure 98—Boylston Steam Specialty Co., Chicago, Ill.
Fisher Governor Co., Marshalltown, Iowa.
Ford—Ford Regulator Corp., New York, N. Y.
Ford—Colles Heater Co., Chicago, Ill.
Foster—Foster Engineering Co., Newark, N. J.
Foster—Walworth Company, Boston, Mass.
Fulton—Chaplin-Fulton Mfg. Co., Pittsburgh, Pa.
Gold—Gold Car Heating & Lighting Co., New York, N. Y.
Golden-Anderson Valve Specialty Co., Pittsburgh, Pa.
Illinois Engineering Co., Chicago, Ill.
Improved—Julian d'Este Co., Boston, Mass.
International Oxygen Co., Newark, N. J.
Johnson—Johnson Service Co., Milwaukee, Wis.
Kieley & Muller, New York, N. Y. "Kieley."
Kitts—Kitts Mfg. Co., Oswego, N. Y.
K. & T.—Klipfel Mfg. Co., Chicago, Ill.
Lalor Fuel Oil System Co., Baltimore, Md.
Leslie Co., Lyndhurst, N. J.
Lewis Steam Specialty & Valve Co., Philadelphia, Pa
Lytton—Lytton Mfg. Corp., Franklin, Va.
Mason—Mason Regulator Co., Boston, Mass.
Manhattan—Harlem Mfg. Co., New York, N. Y.
McDonald Co., A. Y., Dubuque, Ia.
Monash—Monash-Younker Co., Chicago, Ill.
Mueller Steam Specialty Co., Inc., New York, N. Y.
National Regulator Co., Chicago, Ill.
New Era, Old Reliable—Locke Regulator Co., Salem, Mass.
O. K.—Kitts Steam Specialties Co., Oswego, N. Y.
Open Coil Heater & Purifier Co., Indianapolis, Ind.
Peco—Pittsburgh Engineering Co., Jeannette, Pa.
Perfection—American District Steam Co., N. Tonawanda, N. Y.
Pilot—Boylston Steam Specialty Co., Chicago, Ill.
Powers—The Powers Regulator Co., Chicago, Ill.
Quitetite-Ault—Schutte & Koerting Co., Philadelphia, Pa.
Ross Valve Mfg. Co., Inc., Troy, N. Y.
Ruggles-Klingemann Mfg. Co., Salem, Mass. (marine type).
Schade—Schade Valve Mfg. Co., Philadelphia, Pa.
Schutte—Schutte & Koerting Co., Philadelphia, Pa.
Spence Engineering Co., Inc., New York, N. Y.
Squires, C. E., Co., The, Cleveland, Ohio. "Squires Genuine."
Strong's—The Strong, Carlisle & Hammond Co., Cleveland, O.
Tagliabue, C. J., Mfg. Co., Brooklyn, N. Y. "Tag."
Trojan—Ross Valve Mfg. Co., Troy, N Y.
Tryco—Tryco Products, Inc., Westfield, Mass.
Tycos—Taylor Instrument Companies, Rochester, N. Y.
Union Water Meter Co., Worcester, Mass.
Utility—Standard Steam Specialty Co., New York.
V. & K.—Vail & Kimes, Dayton, O.
W. E. W.—Wm. E. Williams Valve Corp., New York, N. Y.
Waters—Waters Governor Co., Boston, Mass.
Watson—Watson & McDaniel Co., Philadelphia, Pa.
Watson-Stillman Co., New York, N. Y.
Watts Regulator Co., Lawrence, Mass.
Witt, G. E., Co., Inc., San Francisco, Cal. "Simplex," "Witt's."

VALVES, PROTECTED SEAT.

B. & O. Patent—Homestead Valve Mfg. Co., Homestead, Pa. (angle, check and globe).

VALVES, PUMP, LEATHER, RUBBER, FIBRE AND COMPOSITION.

Albion—Albion Mfg. Co., Seattle, Wash.
Algco—Auburn Leather Goods Co., Hartford, Conn.
American Safety Lamp & Mine Supply Co., Scranton, Pa.
American Vulcanized Fibre Co., Wilmington, Del.
American—The American Well Works, Aurora, Ill.
Belmont—Belmont Packing & Rubber Co., Philadelphia, Pa.
Berger Bros. Co., Philadelphia, Pa.
Birch—Birch Manufacturing Co., Chicago, Ill.
Brandt's—Randolph Brandt, New York, N. Y.
Buffalo Weaving & Belting Co., Buffalo, N. Y.
Canfield Rubber Co., The, Bridgeport, Conn.
Canfield—H. O. Canfield Co., The, Bridgeport, Conn.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Cincinnati Gasket & Packing Co., Cincinnati, O.
Cincinnati Rubber Mfg. Co., The, Cincinnati, O.
Colossus—Colossus Co., Inc., Shreveport, La.
Continental Fibre Co., Newark, Del.
Cook, A. D., Inc., Lawrenceburg, Ind.
C. O. P.—The Strong Machinery & Supply Co., New York, N. Y.
Crandall's—Crandall Packing Co., Palmyra, N. Y.
Darling Valve & Mfg. Co., Williamsport, Pa.
Delaware Hard Fibre Co., Marshallton, Del.
Dempster—Dempster Mill Mfg. Co., Beatrice, Neb.
Diamond Rubber Co., Inc., Akron, O. Trade names—Anthracite, Defiance, Sphinx, Python, Huron, Crescent, Star, Rex, Elk, Erie, High Service, Lion, Equator, Luzerne, Ajax, Portage, Arctic.
Dick, R. & J., Co., Inc., Passaic, N. J. "Dickvalve."
Double Service—Double Service Packing Co., Philadelphia, Pa.
Durabla—Durabla Mfg. Co., New York, N. Y.
Elkhart Rubber Works, Elkhart, Ind.
Empire Tire & Rubber Corp., Trenton, N. J.
Essex—Essex Rubber Co., Trenton, N. J.
Evans, John E., Nutley, N. J.
Excelsior Leather Washer Mfg. Co., Rockford, Ill. "X L."
Excelsior—Excelsior Valve Co., New York, N. Y.
Federalite, Indurate—Federal Metallic Packing Co., Boston, Mass.
Gasket Supply Co., Philadelphia, Pa.
Gasoila—The Strong Machinery & Supply Co., New York, N. Y.
General Asbestos & Rubber Co., Charleston, S. C.
Goodrich—The B. F. Goodrich Rubber Co., Akron, O.
Goodyear Tire & Rubber Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., New York, N. Y.
G. W. K.—Geo. W. Knowlton Rubber Co., Boston, Mass.
Haight's Pat.—Chandler Pump Co., Cedar Rapids, Ia.
Hamilton Rubber Mfg. Co., Trenton, N. J.
Hayes Pump & Planter Co., Galva, Ill.
Hess & Hopkins Leather Co., Rockford, Ill.
Hewitt Rubber Co., Buffalo, N. Y.
Hill—The Hill Pump Valve Co., Chicago, Ill
Hudson Mechanical Rubber Co., New York, N. Y.
Humphryes Mfg. Co., The, Mansfield, O.
Ideal—Lake Erie Manfg. Co., Inc., Buffalo, N. Y.
Jenkins—Jenkins Bros., New York, N. Y.
Johnson Co., The Henry, Jersey City, N. J.
Kinghorn—U. S. Indestructible Gasket Co., Brooklyn, N. Y.
La Favorite Rubber Mfg. Co., Paterson, N. J.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Marston & Co., I. G., Boston, Mass.

Max—Max Ams Machine Co., New York, N. Y.
Mechanical Rubber Co., The, Cleveland, Ohio.
Mineral Rubber Products Co., The, Moline, Ill.
Morrow Automatic Valve Co., Milan, O.
Mulconroy Co., Inc., Philadelphia, Pa.
Myers, F. E., & Bro. Co., The, Ashland, O.
N. B. O.—Home Rubber Co., Trenton, N. J.
New York Rubber Corporation, Beacon, N. Y.
Nichols Perfection—Fred Y. Nichols, Chicago, Ill.
Page Belting Co., Concord, N. H.
Pennsylvania Rubber Co., The, Jeanette, Pa.
Perfection—Lake Erie Mfg. Co., Inc., Buffalo, N. Y.
Quaker—Quaker City Rubber Co., Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Richardson-Phenix Co., Milwaukee, Wis.
Robertson, John F., Co., Pittsburgh, Pa. "Kinkhorn," "Multiplex Metallic."
Rub-Steel—Voorhees Rubber Mfg. Co., Jersey City, N. J.
Salisbury, W. H., & Co., Chicago Ill.
Schacht Rubber Mfg. Co., Huntingdon, Ind.
Schade Valve Mfg. Co., Philadelphia, Pa.
Standard Fibre Co., Somerville, Mass.
Tri-Disc—J. C. Edgecombe & Co., New York, N. Y.
Union Rubber & Asbestos Co., Trenton, N. J.
United & Globe Rubber, Inc., Trenton, N. J.
Veelos—Manheim Mfg. & Belting Co. Manheim, Pa.
Victor Balata & Textile Belting Co., New York. "Victor."
Voorhees Rubber Mfg. Co., Jersey City, N. J.
Vulcanite—New York Belting & Packing Co., Inc., New York, N. Y.
Western Rubber Co., Goshen, Ind.
Whitehead Bros. Rubber Co., Trenton, N. J.
Williams-Bowman Rubber Co., The, Cicero, Ill.
Wise & Bailey, Philadelphia, Pa.
Wisold—Consolidated Packing & Supply Co., New York, N. Y.

VALVES, PUMP REGULATING.

Burrows—F. A. Burrows Mfg. Co., York, Pa.
Curtis—Julian d'Este Co., Boston, Mass.
Fisher Governor Co., The, Marshalltown, Iowa.
Ford—Ford Regulator Corp., New York, N. Y.
Kieley & Mueller, New York, N. Y.
Mason—Mason Regulator Co., Boston, Mass.
Strong—The Strong Carlisle & Hammond Co., Cleveland, O.
W. E. W.—Wm. E. Williams Valve Corp., New York, N. Y.
Walworth Company, Boston, Mass.
Watson—Watson & McDaniel Co., Philadelphia, Pa.
Williams-Bullen—The Williams Gauge Co., Pittsburgh, Pa.

VALVES, QUICK OPENING AND CLOSING

Crane—Crane Co., Chicago, Ill.
Commonwealth Brass Corp., Detroit, Mich.
Darling Valve & Mfg. Co., The, Williamsport, Pa.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Ernst & Co., Newark, N. J.
Fairbanks—The Fairbanks Co., New York, N. Y.
General Brass Company, Detroit, Mich.
Gorton & Lidgerwood Co., New York, N. Y.
Gwynn—The Gwynn Engineering Co., Pittsburgh, Pa.
Hydraulic Press Mfg. Co., The, Columbus, O. (lever—high pressure). "H. P. M."
Hammond Brass Works, Hammond, Ind.
Handy, Victor—The Lunkenheimer Co., Cincinnati, O.
Homestead Valve Mfg. Co., Homestead, Pa.
Jenkins—Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Ludlow—The Ludlow Valve Mfg. Co., Troy, N. Y.
McAlear Mfg. Co., Chicago, Ill.
Marsh Valve Co., Dunkirk, N. Y.
Mason—Mason Regulator Co., Boston, Mass.
Mount Morris Valve Corp., Mount Morris, N. Y.
Nason Manufacturing Co., The, New York, N. Y.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Pittsburgh Valve & Fittings Co., Barberton, O.
Powell Co., The, Wm., Cincinnati, O.
Quick-Flo—The D. T. Williams Valve Co., Cincinnati, O.
Scott Valve & Mfg. Co., Detroit, Mich. (Trade names—Chicago, Scott.)
Strong, Carlisle & Hammond Co., The, Cleveland, O. "Strong's."
Trane Company, The, LaCrosse, Wis.
Union Water Meter Co., **Worcester, Mass.**
Walworth Company, Boston, Mass.

VALVES, RADIATOR, AIR, AUTOMATIC.

Automatic—W. A. Russell & Co., New York, N. Y.
B. & C.—The Beaton & Corbin Mfg. Co., Southington Conn.
Beaton & Cadwell Mfg. Co., New Britain, Conn.
Bishop & Babcock Co., The, Cleveland, O.
Breckenridge—The H. B. Smith Mfg. Co., Westfield Mass.
Capitol—U. S. Radiator Corp., Detroit, Mich.
Crane—Crane Co., Chicago, Ill.
The Dole—The Dole Valve Co., Chicago, Ill.
Durham Auto-Vac—Imperial Brass Mfg. Co., Chicago.
Foxboro Co., Inc., The, Foxboro, Mass.
General Brass Company, Detroit, Mich.
Harlem Mfg. Co., New York, N. Y. "Manhattan."
Hoffman—Hoffman Specialty Co., Waterbury, Conn.
Jenkins Bros., New York, N. Y.
Keeney Mfg. Co., The, Newington, Conn.
Kelly Brass Works, Chicago, Ill. "Kelly."
Koalsave—Koalsave Vacuum Valve Co., New York, N. Y.
Leskole—Leskole Sales Co., Philadelphia, Pa.
Little, M. S., Mfg. Co., Hartford, Conn.
Magee Steam Specialty Corp., New York. (Trade names—Jumbo, Jumbo Gem, Jumbo Special, Jumbo Water Seal.)
Marsh, Jas. P., & Company, Chicago, Ill. "Acme," "Illinois," "Leicester," "Marsh's Original Paul," "Marsh-Paul," "Marval," "Pacific," "Thermodisk."
Marsh Valve Co., Dunkirk, N. Y.
McAlear Thermo Vent—McAlear Mfg. Co., Chicago, Ill.
Monash-Younker Co., Chicago, Ill. Trade names—Atlas Syphon, Badge, Midget, Mo-Va-Co-Monash, Monash Paul, Monash Radifier, Monash Thermostatic, Monash Four-Way-Drain, Monash Telwan, Mo-Yo-Co, M-Y-C, Noxall, Noxall Syphon, Perfected Duplex, Re-New-Pa, Star, Syphon.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Penn Engineering Co., The, Philadelphia, Pa. (Trade names—Ball Joint, Jr. (float), Ball Joint Royal (float), Peco, Penn, Penn Jr.)
Russell Perfect—W. A. Russell & Co., New York, N. Y.
Trane Co., The, La Crosse, Wis.
U. S. Radiator Corp., Detroit, Mich. "Triton."
Walworth Company, Boston, Mass.

VALVES, RADIATOR, AIR, POSITIVE, KEY AND WOOD WHEEL.

Ansonia Mfg. Co., Ansonia, Conn.
Automatic—W. A. Russell & Co., New York, N. Y.
Beaton & Cadwell Mfg. Co., New Britain, Conn.
Beaton & Corbin Mfg. Co., Southington, Conn. "B. & C."
Belknap Mfg. Co., Bridgeport, Conn.
Bemanco—The M. S. Little Mfg. Co., Hartford, Conn.
Bishop & Babcock Co., The, Cleveland, O.
Commonwealth Brass Corp., Detroit, Mich.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Dole—**The Dole Valve Co., Chicago, Ill.**
General Brass Company, Detroit, Mich.
Harlem Mfg. Co., New York, N. Y. "Harlem," "Manhattan."
Jumbo—Magee Steam Specialty Corp., New York, N. Y.
Keeney Mfg. Co., The, Newington, Conn.
Kelly Brass Works, Chicago, Ill. "Kelly."
Monash-Younker Co., Chicago, Ill.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Penn—The Penn Engineering Co., Philadelphia, Pa.
Perfecto—E. Edelman & Co., Chicago, Ill.
Perkes Co., Charles, Philadelphia, Pa.
Powell, Wm., Co., The, Cincinnati, O.
Roberts Brass Mfg. Co., The, Detroit, Mich.
Simmons Co., John, New York, N. Y.
Sterling & Skinner Mfg. Co., Detroit, Mich.
Thermodisk—Jas. P. Marsh & Co., Chicago, Ill.
Walworth Company, Boston, Mass.
Warco—W. A. Russell & Co., New York, N. Y.

VALVES, RADIATOR, GRADUATED, MODULATING.

Adsco—American District Steam Co., North Tonawanda, N. Y.
Bishop & Babcock Co., The, Cleveland, O.
Capitol Brass Works, Detroit, Mich.
Commonwealth Brass Corp., Detroit, Mich.
Crane—Crane Co., Chicago, Ill.
Detroit Multi-port Vapor—Detroit Lubricator Co., Detroit, Mich.
Doody—Doody Vapor Heating Co., Inc., Boston.
General Brass Company, Detroit, Mich.
Gorton & Lidgerwood Co., New York, N. Y.
H. S. Co.—Haynes Selling Co., Philadelphia, Pa.
Hoffman—Hoffman Specialty Co., Waterbury, Conn.
Illinois Engineering Co., Chicago, Ill.
Jenkins—Jenkins Bros., New York, N. Y.
McAlear—McAlear Mfg. Co., Chicago, Ill.
Marsh Valve Co., Dunkirk, N. Y.
Milwaukee Valve Co., Milwaukee, Wis.
Monash-Younker Co., Chicago, Ill. "Monash," "Monash Modulating."
Mouat Vapor Heating Co., Cleveland, O.
Ohio Brass Co., Mansfield, O. "O-B."
Peco—Pittsburgh Engineering Co., Jeannette, Pa.
Stay-Rite—Ideal Heating Equipment Co., Cleveland, Ohio.
Trane Co., The, La Crosse, Wis.
Vapor—The Rado Co., Milwaukee, Wis.
Webster—Warren Webster & Co., Camden, N. J.

VALVES, RADIATOR, HOT WATER.

American, Jenkins Type—American Valve Co., Coxsackie, N. Y.
Belknap Mfg. Co., Bridgeport, Conn.
Beaton & Cadwell Mfg. Co., New Britain, Conn.
Capitol Brass Works, Detroit, Mich. "Sta-Pak."
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Eureka—Eureka Brass Works, Inc., Cincinnati, O.
Fairbanks—The Fairbanks Co., New York, N. Y.
General Brass Company, Detroit, Mich.
Hammond—Hammond Brass Works, Hammond, Ind.
Homestead—Homestead Valve Mfg. Co., Homestead, Pa.
Honeywell Heating Specialty Co., Wabash, Ind. "Unique."
Illinois Malleable Iron Co., Chicago, Ill.
Inbraco—Indiana Brass Co., Frankfort, Ind.
Jenkins—Jenkins Bros., New York, N. Y.
Jumbo—Magee Steam Specialty Corp., New York,
Kennedy Valve Mfg. Co., Elmira, N. Y.
Lunkenheimer Co., Cincinnati, O.
Marsh—Marsh Valve Co., Dunkirk, N. Y.
Milvaco—Milwaukee Valve Co., Milwaukee, Wis.
Monash-Younker Co., Chicago, Ill. "Monash Packless."
O-B—Ohio Brass Co., Mansfield, O.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Powell, Wm., Co., The, Cincinnati, O.
Prier—Walter H. Prier Co., Chicago, Ill.
Scott Valve & Mfg. Co., Detroit, Mich.
Union Radiator Co., Johnstown, Pa.
Walworth Company, Boston, Mass.
Williams, D. T., Valve Co., The, Cincinnati, O.

VALVES, RADIATOR, PACKLESS.

Bishop & Babcock Co., The, Cleveland, O.
Capitol—Capitol Brass Works, Detroit, Mich.
Commonwealth Brass Corp., Detroit, Mich.
Defiance—Defiance Packless Valve Co., Quincy, Ill.
Detroit Multiport—Detroit Lubricator Co., Detroit.
Dole Valve Co., The, Chicago, Ill. "Dole."
Dunham, C. A., Co., Inc., Chicago, Ill.
General Brass Company, Detroit, Mich.
Gorton & Lidgerwood Co., New York, N. Y.
Holmberg Steam Trap Co., The, Lindsborg, Kans.
Lavigne—Commonwealth Brass Corp., Detroit, Mich.
Mabbs—Mabbs Hydraulic Packing Co., Chicago, Ill.
Marsh—James P. Marsh & Co., Chicago, Ill.
Marsh—Marsh Valve Co., Dunkirk, N. Y.
McAlear Mfg. Co., The, Chicago, Ill. "McAlear."
Messmer Brass Co., St. Louis, Mo.
Milwaukee Air Power Pump Co., Milwaukee, Wis.
Monash-Younker Co., Chicago, Ill. "Monash," "Monash Modulating."
O. E. Specialty Mfg. Co., Milwaukee, Wis.
Ohio Brass Co., Mansfield, O. "O-B."
Steam Economy Co., Chicago, Ill.

VALVES, RADIATOR, STEAM.

Adsco—American District Steam Co., North Tonawanda, N. Y.
American, Jenkins Type—American Valve Co., Coxsackie, N. Y.
Beaton & Cadwell Mfg. Co., New Britain, Conn.
Bashlin—The Bashlin Co., Warren, Pa.
Belknap—Belknap Mfg. Co., The, Bridgeport, Conn.
Bishop & Babcock Co., The, Cleveland, O.
Capitol Brass Works, Detroit, Mich. "Sta-Pak."
Collis—Jenkins Bros., New York, N. Y.
Commonwealth Brass Corp., Detroit, Mich.
Crane Co., Chicago, Ill.
Crescent—The Wm. Powell Co., Cincinnati, O.
Detroit Brass & Malleable Works, Detroit, Mich.
Detroit Lubricator Co., Detroit, Mich. "Detroit, "Multi Port."
Doody Vapor Heating Co., Inc., Boston, Mass.
Eureka—Eureka Brass Works, Inc., Cincinnati, O.
Fairbanks—The Fairbanks Co., New York, N. Y.
Garratt, W. T., & Co., Inc., San Francisco, Cal.
General Brass Company, Detroit, Mich.
Gorton—Gorton & Lidgerwood Co., New York, N. Y.
Hammond—Hammond Brass Works, Hammond, Ind.
Haydenville Co., The Haydenville, Mass.
Hoffman—Hoffman Specialty Co., Waterbury, Conn.
Inbraco—Indiana Brass Co., The, Frankfort, Ind.
Jenkins—Jenkins Bros., New York, N. Y.
Johns-Manville Corporation, New York, N. Y.
Jumbo—Magee Steam Specialty Corp., New York.
Kelly Self Grinding—Kelly Valve Co., Muskegon, Mich.
Kennedy Valve Mfg. Co., Elmira, N. Y. "Kennedy."
K. M.—Kinsey & Mahler Co., Peoria, Ill.
Lukomski—Lukomski Brothers Co., Detroit, Mich.
Lunkenheimer Co., The, Cincinnati, O.
Marsh—Marsh Valve Co., Dunkirk, N. Y.
Jas. P. Marsh & Co., Chicago, Ill. "Marsh."
Michigan—Scott Valve & Mfg. Co., Detroit, Mich.
Milvaco—Milwaukee Valve Co., Milwaukee, Wis.
Monash-Younker Co., Chicago, Ill.
National Radiator Corporation, Johnstown, Pa.
Ohio Brass Co., Mansfield, O. "O-B."
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Penn—The Penn Engineering Co., Philadelphia, Pa.
Perkes, Chas., Co., Philadelphia, Pa.
Prier—Walter H. Prier Co., Chicago, Ill.
Rado Co., The, Milwaukee, Wis. "Modulating."
Simmons Co., John, New York, N. Y.
Simplex Valve & Meter Co., Philadelphia. "Simplex."
Sterling—Sterling Faucet Co., Newcomerstown, O.
Thermoflex—W. D. Cashin, Boston, Mass.
Union—The Wm. Powell Co., Cincinnati, O.
U. S. Radiator Corp., Detroit, Mich. "Triton."
Walworth Company, Boston, Mass.
White Star—The Wm. Powell Co., Cincinnati, O.
Wiley Calibrating—Simplex Heating Specialty Co., Lynchburg, Va.
Williams, D. T., Valve Co., The, Cincinnati, O.

VALVES, RAPID ACTION.

(See also "Valves, Quick Opening and Closing.")

Jenkins—Jenkins Bros., New York, N. Y.

VALVES, REGRINDING.

(See also "Valves, Globe, Regrinding.")

Bayer—The Bayer Company, St. Louis, Mo.
Crane Company, Chicago, Ill.
Eckenroth—Eckenroth Valve & Mfg. Co., Philadelphia, Pa.
Jenkins—Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Powell, Wm., Co., The, Cincinnati, O.
Richardson-Phenix Co., Milwaukee, Wis.
Walworth Kewanee—Walworth Company, Boston, Mass.
W. E. W.—Wm. E. Williams Valve Corp., New York.
Williams—The D. T. Williams Co., Cincinnati, O.

VALVES, RELIEF.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Ashton—The Ashton Valve Co., Cambridge, Mass.
Bishop & Babcock Co., Cleveland, O.
Callahan, Cornelius, Co., The, Boston, Mass. "Callahan."
Capitol—Capitol Brass Works, Detroit, Mich.
Cash, A. W., Company, Decatur, Ill.
Cash, A. W., Valve Mfg. Corp., Decatur, Ill.
Chaplin-Fulton Mfg. Co., Pittsburgh, Pa. "Fulton."
Clark, H. W., Co., Mattoon Ill.
Crane—Crane Co., Chicago, Ill.
Curtis—Julian d'Este Co., Boston, Mass.
Davis—G. M. Davis Regulator Co., Chicago, Ill.
Dunham—C. A. Dunham Co., Inc., Chicago, Ill.
Elliott—Elliott Co., Jeannette, Pa. (atmospheric).
Exeter Brass Works, Exeter, N. H.
Fairbanks—The Fairbanks Co., New York, N. Y.
Fisher Governor Co., The, Marshalltown, Iowa.
Foster—Foster Engineering Co., Newark, N. J.
Foster—Walworth Company, Boston, Mass.
General Brass Company, Detroit, Mich.
Illinois Engineering Co., Chicago, Ill.
Justus Air Relief—Justus Steam Trap Co., Napanoch, N. Y.
Kieley & Muller, New York, N. Y. "Kieley."
K. & T.—Klipfel Mfg. Co., Chicago, Ill.
Lalor Fuel Oil System Co., Baltimore, Md.
Locke Regulator Co., Salem, Mass.
Lonergan, J. E., Co., Philadelphia, Pa.
Ludlow Valve Mfg. Co., The, Troy, N. Y.
Lunkenheimer Co., The, Cincinnati, O.
McAlear Mfg. Co., Chicago, Ill.
McDonald Mfg. Co., A. Y., Dubuque, Ia.
Metalwood—Metalwood Mfg. Co., Detroit, Mich.
Morrison Bros., Dubuque, Iowa.
Mount Morris Valve Corp., Mount Morris, N. Y.
Mueller Co., Decatur, Ill.
Mueller Steam Specialty Co., Inc., New York, N. Y.
Nathan Mfg. Co., New York, N. Y.
Nelson Co., The, Boston, Mass. "Donnelly."
Powell, Wm., Co., The, Cincinnati, O.
Red Top—Neptune Meter Co., New York, N. Y.
Red Top—Philadelphia Meter Co., Philadelphia, Pa.
Richardson—H. G. Hammett, Troy, N. Y.
Roots—The P. H. & F. M. Roots Co., Connersville, Ind.
Scott Valve & Mfg. Co., Detroit, Mich. (Trade names—Orme, Scott.)
Stack—Stack Heater Co., Boston, Mass.
Star—Star Brass Mfg. Co., Boston, Mass.
Triumph Valve Mfg. Co., Mansfield, O.
Trojan—Hammett Machine Works, Troy, N. Y.
United—United Brass Mfg. Co., Cleveland, O.
V. & K.—The Vaile-Kimes Co., Dayton, O.
Witts—G. E. Witt Co., Inc., San Francisco, Calif.
Watson—Watson & McDaniel, Philadelphia, Pa.

VALVES, RETENTION.

Newbury, Jay H., & Son, Goshen, N. Y.

VALVES, RETURN LINE.

Bishop & Babcock Co., The, Cleveland, O.
Crosby-Hessel Co., Minneapolis, Minn.
Hoffman Specialty Co., Waterbury, Conn.
Marsh, Jas. P., Co., Chicago, Ill.
Monash-Younker Co., Chicago, Ill.
O. E. Specialty Co., Milwaukee, Wis.
Vento—Wm. S. Haines & Co., Philadelphia, Pa.

VALVES, REVERSE CURRENT.

Cox & Sons Co., The, Bridgeton, N. J.

VALVES, REVERSIBLE, NICKEL SEAT.

Reverso, Iroverso—The D. T. Williams Valve Co., Cincinnati, O.

VALVES, SAFETY, HIGH PRESSURE.

American District Steam Co., North Tonawanda, N. Y.
American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Ashton—The Ashton Valve Co., Cambridge, Mass.
Belfield Co., H., Philadelphia, Pa.
Bishop & Babcock Co., The, Cleveland, O.
Duplex—The Lunkenheimer Co., Cincinnati, O.
Cleveland Faucet Co., The, Cleveland, O.
Coale—Nathan Mfg. Co., New York, N. Y.
Consolidated Safety Valve Co., The, New York.
Crane—Crane Co., Chicago, Ill.
Edna Brass Mfg. Co., Cincinnati, Ohio.
Elmes, Chas. F., Engineering Works, Chicago, Ill.
Ernst & Co., Newark, N. J. "Ernst Safety First."
Foster—Foster Engineering Co., Newark, N. J.
Garratt, W. T., & Co., Inc., San Francisco, Cal.
General Brass Company, Detroit, Mich.
Hydraulic Press Mfg. Co., The, Columbus, O. (hydraulic). "H. P. M."
Jenkins—Jenkins Bros., New York, N. Y.
Lunkenheimer Co., The, Cincinnati, O.
Powell, Wm., Co., The, Cincinnati, O.
Scott Valve & Mfg. Co., Detroit, Mich. "Orme," "Scott."
Star—Star Brass Mfg. Co., Boston, Mass.
United States Air Compressor Co., Cleveland, Ohio.
Walworth Company, Boston, Mass.

VALVES, SAFETY, LOW PRESSURE.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Bishop & Babcock Co., The, Cleveland, O.
Capitol Brass Works, Detroit, Mich.
Crane—Crane Co., Chicago, Ill.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Foster—Foster Engineering Co., Newark, N. J.
General Brass Company, Detroit, Mich.
Hutchison—Hutchison Vapor Heating Co., Washington, D. C
Jenkins—Jenkins Bros., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Nelson Co., The, Boston, Mass. "Donnelly."
Russell, W. A., & Co., New York, N. Y. "Russell."
Scott Valve & Mfg. Co., Detroit, Mich. (Trade names—Orme, Scott.)
Stack Heater Co., Boston, Mass.
Walworth Company, Boston, Mass.

VALVES, SAFETY, SHUT-OFF.

Fulton Sylphon Co., Knoxville, Tenn.
Locke—Locke Regulator Co., Salem, Mass.

VALVES, SAFETY, FOR WELDING EQUIPMENT.

Mattingly Automatic Valve Co., Saint Louis, Mo.
Burdett Mfg. Co., Chicago, Ill.

VALVES, SAND PUMP.

Cook, A. D., Inc., Lawrenceburg, Ind.

VALVES, SIAMESE.

American Foundry & Mfg. Co., St. Louis, Mo.
Milwaukee Brass Mfg. Co., Milwaukee, Wis.

VALVES, SLIDING, GLOBE TYPE.

Flatplug—Everlasting Valve Co., Jersey City, N. J.

VALVES, SLUICE.

Coffin—Coffin Valve Co., Boston, Mass.
Coldwell-Wilcox Co., Newburgh, N. Y.
Hunt—Rodney Hunt Machine Co., Orange, Mass.

VALVES, STANDPIPE.

Anderson—Golden-Anderson Valve Specialty Co., Pittsburgh, Pa.
Fairbanks—The Fairbanks Co., New York, N. Y.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Iowa Valve Co., Oskaloosa, Ia.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Simplex Valve & Meter Co., Philadelphia, Pa.
Walworth Company, Boston, Mass.

VALVES, STEAM FEED.

Ashton Valve Co., Cambridge, Mass.
Reading—Reading Steel Casting Co., Inc., Bridgeport, Conn. (steel).

VALVES, STEAM MAIN, LOCOMOTIVE.

Edna Brass Mfg. Co., The, Cincinnati, O.
Ernst & Co., Newark, N. J. "Ernst Safety First"
Ohio Injector Co., The, Wadsworth, O. "O. I. C."

VALVES, STEEL AND SEMI-STEEL.

Barco—Barco Mfg. Co., Chicago, Ill.
Chapman—Chapman Valve Mfg. Co., Indian Orchard, Mass.
Crane Co., Chicago, Ill.
Edward—Edward Valve & Mfg. Co., East Chicago, Ind.
Hancock—Manning, Maxwell & Moore, Inc., New York, N. Y.
Hovalco—Homestead Valve Mfg. Co., Homestead, Pa. (blow-off only).
Hydraulic Press Mfg. Co., The, Columbus, O. "H. P. M."
Jenkins—Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Kerotest—Pittsburgh Reinforced Brazing & Machine Co., Pittsburgh, Pa.
Klipfel Mfg. Co., Chicago, Ill.
Lunkenheimer Co., The, Cincinnati, O.
Metalwood—Metalwood Mfg. Co., Detroit, Mich.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Ohio Brass Co., Mansfield, O.
Patterson-Allen—Everlasting Valve Co., Jersey City, N. J.
Pittsburgh Valve & Fittings Co., Barberton, O.
Powell, Wm., Co., The, Cincinnati, O.
Renewable—Star Brass Mfg. Co., Boston, Mass.
Richardson-Phoenix Co., The, Milwaukee, Wis.
Schutte & Koerting Co., Philadelphia, Pa.
United Injector Co., New York, N. Y.
Vogt—Henry Vogt Machine Co., Louisville, Ky.
W.E.W.—William E. Williams Valve Corp., New York, N. Y.
Walworth Company, Boston, Mass. (Trade names—Sigma Steel, Steeliron.)
Watson-Stillman Co., The, New York, N. Y.
Williams, D. T., Valve Co., The, Cincinnati, O.

VALVES, STOP AND CHECK.

Anderson, Golden—Golden-Anderson Valve Specialty Co., Pittsburgh.
Belfield, H., Co., Philadelphia, Pa.
Crane—Crane Co., Chicago, Ill.
Darling Valve & Mfg. Co., The, Williamsport, Pa.
Davis—The G. M. Davis Regulator Co., Chicago, Ill.
Edna Brass Mfg. Co., Cincinnati, O.
Edward Valve & Mfg. Co., The, East Chicago, Ind. "Edward."
Fairbanks—The Fairbanks Co., New York, N. Y.
Ford—Ford Regulator Corp., New York, N. Y. (emergency).
Foster—Foster Engineering Co., Newark, N. J.
Hydraulic Press Mfg. Co., The, Columbus, O. (high pressure). "H. P. M."
Illinois Engineering Co., Chicago, Ill.
Jenkins—Jenkins Bros., New York, N. Y.
Kieley & Muller, New York, N. Y. "Kieley."
Lock—Lock Regulator Co., Salem, Mass.
Lunkenheimer Co., The, Cincinnati, O.
McAlear Mfg. Co., Chicago, Ill.
Metalwood—Metalwood Mfg. Co., Detroit, Mich.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Powell, Wm., Co., The, Cincinnati, O.
Pratt & Cady—Reading Steel Casting Co., Inc., Bridgeport, Conn.
Ruggles-Klingemann Mfg. Co., Salem, Ohio. "R.-K."
Schutte—Schutte & Koerting Co., Philadelphia, Pa.
Scott Valve & Mfg. Co., Detroit, Mich.
Southwark Foundry & Machine Co., Philadelphia, Pa. (balanced hydraulic).
Strong Carlisle & Hammond Co., Cleveland, O. "Strong."
Victory—Victory Manufacturing Co., Niles, Cal.
Walworth Company, Boston, Mass.
W. E. W.—Wm. E. Williams Valve Corp., New York.
Williams—The D. T. Williams Valve Co., Cincinnati, Ohio.
Yarnall-Waring Co., Philadelphia, Pa. "Simplex Caskey."

VALVES, STOP, EMERGENCY.

Consolidated Engine Stop Co., New York, N. Y.
Crane—Crane Co., Chicago, Ill.
Davis, G. M., Regulator Co., Chicago, Ill.
Edward Valve & Mfg. Co., East Chicago, Ind.
Ford—Ford Regulator Co., New York, N. Y.
Foster Engineering Co., Newark, N. J.
Golden-Anderson Valve Specialty Co., Pittsburgh, Pa.
Jenkins—Jenkins Bros., New York, N. Y.
Locke—Locke Regulator Co., Salem, Mass.

Lunkenheimer Co., Cincinnati, O.
Pittsburg Valve & Fittings Co., Barberton, O.
Powell, Wm., Co., The, Cincinnati, O.
R. K.—Ruggles-Klingemann Mfg. Co., Salem, Mass.
Schutte & Koerting Co., Philadelphia, Pa.
Strong—The Strong, Carlisle & Hammond Co., Cleveland, O.

VALVES, STRAIGHTWAY.

Gorton—Gorton & Lidgerwood Co., New York, N. Y.
Homestead Valve Mfg. Co., Homestead, Pa.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Marsh Valve Co., Dunkirk, N. Y.
Ohio Brass Co., Mansfield, O. "O-B" (gate).
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Renewo—Lunkenheimer Co., Cincinnati, O.
Scott Valve & Mfg. Co., Detroit, Mich.
Walworth Company, Boston, Mass.

VALVES, SUPERHEATED STEAM.

Chapman Valve Mfg. Co., Indian Orchard, Mass.
Crane Co., Chicago, Ill.
Homestead Valve Mfg. Co., Homestead, Pa.
Jenkins Bros., New York, N. Y.
Kennedy Valve Mfg. Co., The, Elmira, N. Y.
Lunkenheimer Co., The, Cincinnati, O.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Vogt, Henry, Machine Co., Louisville, Ky.
Walworth Company, Boston, Mass.

VALVES, TEMPERATURE RELIEF.

Nelson Co., The, Boston, Mass. "Donnelly."

VALVES, THERMOSTATIC.

Bishop & Babcock Co., The, Cleveland, O.
Hoffman Specialty Co., Waterbury, Conn.
Hornung, J. C., Chicago, Ill.
Marsh—Jas. P. Marsh & Co., Chicago, Ill.
Monash Thermostatic—Monash Younker Co., Chicago, Ill.
Mott, J. L., Iron Works, Trenton, N. J.
Peco—Pittsburgh Engineering Co., Jeannette, Pa.
Powers Regulator Co., Chicago, Ill.
Robertshaw Thermostat Co., Youngwood, Pa.
Romarco—Martin Co., Fort Wayne, Ind.
Webster—Warren Webster & Co., Camden, N. J.
Wright-Austin Co., Detroit, Mich.

VALVES, 3-WAY AND 4-WAY.

B. & O. Protected Seat—Homestead Valve Mfg. Co., Homestead, Pa.
Bordo—L. J. Bordo Co., Philadelphia, Pa.
Detroit 3-Way—Detroit Lubricator Co., Detroit, Mich.
Detroit Brass & Malleable Works, Detroit, Mich.
Duriron—Duriron Co., Inc., Dayton, O.
G-R—The Griscom-Russell Co., New York, N. Y.
Hydraulic Press Mfg. Co., The, Columbus, O. (high pressure). "H. P. M."
Hills-McCanna Co., Chicago, Ill.
Judson Governor Co., The, Rochester, N. Y.
Metalwood—Metalwood Mfg. Co., Detroit, Mich.
Mount Morris Valve Corp., Mount Morris, N. Y.
Powell, Wm., Co., The, Cincinnati, Ohio.
Riggins—Watson and McDaniel Co., Philadelphia, Pa.
Rockford Brass Works, Rockford, Ill.
Simplex Caskey—Yarnall-Waring Co., Philadelphia, Pa.
Strong—The Strong, Carlisle & Hammond Co., Cleveland, O.
Walworth Company, Boston, Mass.

VALVES, THROTTLE.

Chambers—Watson-Stillman Co., New York, N. Y.
Chapman—Chapman Valve Mfg. Co., Indian Orchard, Mass.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., Cincinnati, Ohio.
Edward Valve & Mfg. Co., The, East Chicago, Ind. "Edward."
Everlasting Valve Co., Jersey City, N. J. "Everlasting."
Fitts—Union Water Meter Co., Worcester, Mass.
Garratt, W. T., & Co., Inc., San Francisco, Cal.
Golden-Anderson Valve Specialty Co., Pittsburgh, Pa.
Goldsmith—Scott Valve & Mfg. Co., Detroit, Mich.
Haydenville Co., The, Haydenville, Mass.
Hoffmann, B., Mfg. Co., Milwaukee, Wis.
Homestead—Homestead Valve Mfg. Co., Homestead, Pa.
Jenkins—Jenkins Bros., New York, N. Y.
Knox—Knox Mfg. Co., Inc., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, O.
Murphy—Furness Bros. Co., Chicago, Ill.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Pekor—Pekor Iron Works, Columbus, Ga.
Powell, Wm., Co., The, Cincinnati, O. "Giant," "Ready," "Titan."
Robertshaw Thermostat Co., Youngwood, Pa.
Schutte—Schutte & Koerting Co., Philadelphia, Pa.
Strong—Strong Carlisle & Hammond Co., Cleveland, Ohio.
Walworth Company, Boston, Mass.
Williams, D. T., Valve Co., The, Cincinnati, O. "Williams."

VALVES, TRANSFER.

Belfield Co., H., Philadelphia, Pa.

VALVES, UNDERWRITERS.

Kennedy Valve Mfg. Co., Elmira, N. Y.
Pratt & Cady—Reading Steel Casting Co., Inc., Bridgeport, Conn.
Walworth Company, Boston, Mass.

VALVES, UNION BONNET.

Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Pratt & Cady—Reading Steel Casting Co., Bridgeport, Conn.
Walworth Company, Boston, Mass.

VALVES, URINAL FLUSHING.

(See also "Valves, Water Closet Flush, Meter Type," "Valves, Water Closet Flush," etc.)
Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Boyle—Federal-Huber Co., Chicago, Ill.
Cleveland Flush Meter Co., Cleveland, O.
Du Bois, F. N., Co., Inc., The, Newark, N. J. "Blauvelt."
E. R. B. C. O.—Edro Richardson Brass Co., Baltimore, Md.
Excelovalve Co., Inc., New York, N. Y.
Flushovalve Co., Edgewater, N. J.
Flushometer—Kenney Mfg. Co., New York, N. Y.
Haas, Philip, Dayton, O.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
I. X. L. Pump & Mfg Co., The, Philadelphia, Pa.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Mott, J. L., Iron Works, Trenton, N. J.
Philco—Phillips Lead & Supply Co., Providence, R. I.
Pilot—Hedges & Bro., Newark, N. J.
Sloan Valve Co., Chicago, Ill. (Trade names—Royal, Sloan.)
Sanitas Mfg. Co., Boston, Mass.
Simplex—Columbus Brass Co., Columbus, O.
Vinometer—Standard Sanitary Mfg. Co., Pittsburgh, Pa.

VALVES, VACUUM.

Bishop & Babcock Co., The, Cleveland, O. (Trade names—Vac Ucheck, Vac Ustat, Vacu Trap, Van Auken).
D. G. C. Trap & Valve Co., Inc., New York, N. Y.
Davis—G. M. Davis Regulator Co., Chicago, Ill.
Detroit—Detroit Lubricator Co., Detroit, Mich.
Edna Brass Mfg. Co., The, Cincinnati, O.
Eddy Engineering Co., Alpena, Mich.
Exeter Brass Works, Exeter, N. H.
Foster—Foster Engineering Co., Newark, N. J.
Harris, Arthur, & Co., Chicago, Ill.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Hoffman Specialty Co., Waterbury, Conn.
Holmberg Steam Trap Co., Lindsborg, Kans.
Illinois Engineering Co., Chicago, Ill.
Jenkins—Jenkins Bros., New York, N. Y.
Kieley & Muller, New York, N. Y. "Kieley."
Kitts—Kitts Mfg. Co., Oswego, N. Y.
Koalsave—Koalsave Vacuum Valve Co., New York.
Kriebel—H. K. Kriebel, Philadelphia, Pa.
Lonergan—J. E. Lonergan Co., Philadelphia, Pa.
Marsh & Co., Jas. P., Chicago, Ill.
Marsh Valve Co., Dunkirk, N. Y.
Mason Regulator Co., Boston, Mass.
Monash Radifier—Monash-Younker Co., Chicago, Ill.
Nelson Co., The, Boston, Mass. "Donnelly."
Open Coil Heater & Purifier Co., Indianapolis, Ind.
O. E.—O. E. Specialty Mfg. Co., Milwaukee, Wis.
Rochester—Rochester Vacuum Valve Co., Rochester
Russell's Non-Adjustable—W. A. Russell & Co., New York, N. Y.
Stickle—Open Coil Heater & Purifier Co., Indianapolis, Ind.
Therm—E. F. Houghton & Co., Philadelphia, Pa.
Triton—U. S. Radiator Corp., Detroit, Mich.
Vento—William S. Haines & Co., Philadelphia, Pa.
Van Auken—The Bishop & Babcock Co., Cleveland, O.
Walworth Company, Boston, Mass.
Webster Modulation—Warren Webster & Co., Camden, N. J.
Witt's—G. E. Witt Co., Inc., San Francisco, Cal.

VALVES, VENT, DUPLEX TANK.

McDonald, A. Y., Mfg. Co., Dubuque, Ia.

VALVES, WATER CLOSET FLUSH.

Acme—Wm. S. Emery, New York, N. Y.
American Brass Novelty Co., Grand Haven, Mich.
American Foundry & Mfg. Co., St. Louis, Mo.
ARRG—Union Metal Works, Chelsea, Mass.
B. B.—Boston Brass Co., Waltham, Mass.
Beaton & Cadwell Mfg. Co., New Britain, Conn.
Burlington Brass Works, Burlington, Wis.
Cleveland Flush Meter Co., Cleveland, O.
Clow, James B., & Sons, Chicago, Ill.
Common Sense—The Midland Brass Works, Fort Worth, Tex.
Coyne & Delany Co., Brooklyn, N. Y. (Trade names—C. & D., Delany.)
Crane Co., Chicago, Ill.
Douglas Pattern—Rockford Brass Works, Rockford, Ill.
Edwardsville Brass Co., Edwardsville, Ill.
Engel Mfg. Co., Syracuse, N. Y.
Enterprise Brass Works, Muskegon, Mich.
Eureka—Kincaid Bros., Pittsburgh, Pa.
Exeter Brass Works, Exeter, N. H. (Trade names—N. H., Ryan.)
Federal-Huber Co., Chicago, Ill. (Trade names—Boyle, Watrous Aquameter.)
Frost Mfg. Co., The, Kenosha, Wis.
Gaco—Pittsburgh Gage & Supply Co., Pittsburgh, Pa.
Haas, Philip, Co., Dayton, O.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Inbraco—Indiana Brass Co., The, Frankfort, Ind.
Imperial Brass Mfg. Co., Chicago, Ill.
Jones Hollow Ware Co., Baltimore, Md.
Jost's, Edmund, Sons, Newark, N. J.
Kalamazoo Sanitary Mfg. Co., Kalamazoo, Mich. (Trade names—Douglas Type, Hydraulic.)
Lewis Patent—Haydenville Co., Haydenville, Mass.
Loyal Brass Co., Cleveland, O.
Lutz, Ferdinand, New York, N. Y.
McDonald, A. Y., Mfg. Co., Dubuque, Iowa.
Maximeters—Sturgis Company, Sturgis, Mich.
Meyer-Sniffen Co., New York, N. Y.
Miller, Charles A., Co., Sturgis, Mich.
Modern Iron Works, Quincy, Ill.
Monash-Younker Co., Chicago, Ill.
Mott, J. L., Iron Works, The, Trenton, N. J.
M. V. B.—Morency-Van Buren Mfg. Co., Sturgis, Mich.
Nelson Co., The, Boston, Mass. "Donnelly."
Niagara—The John Douglas Co., Cincinnati, O.
Nonco—N. O. Nelson Mfg. Co., St. Louis, Mo.
Peck Bros. & Co., New Haven, Conn.
Perfect—American Pin Co., Waterbury, Conn.
Perkes, Charles, Co., Philadelphia, Pa.
Pilot—Hedges & Bro., Newark, N. J.
Release—The Columbus Brass Co., Columbus, O.
Republic—Stringer Bros. Co., Chicago, Ill.
Richardson, Edro, Brass Co., Baltimore, Md. (Trade names—E. R. B., Jenkins, Long.)
Riverside Foundry & Galvanizing Co., Kalamazoo, Mich. (Trade names—Cone, Gooseneck, Hustler, Hydraulic, Plunger, Success.)
Rob—McShane Bell Foundry Co., Baltimore, Md.
Sherwood Brass Works, Detroit, Mich.
Shwab Bros. Co., New York, N. Y.
Simmons, John, Co., New York, N. Y.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Sloan Valve Co., Chicago, Ill.
Texas Mfg. Co., Ft. Worth, Tex.
Trenton Brass & Machine Co., The, Trenton, N. J.
Union Brass & Metal Mfg. Co., St. Paul, Minn. (Trade names—Douglas, Gooseneck, Success.)
Victory—A. F. Curtin Valve Co., Medford, Mass.
Vogel, Joseph A., Co., Wilmington, Del.
Webb, F. W., Mfg. Co., Boston, Mass. (Trade names—Elm, Gorman, Hanover, Hometer.)
Woodward-Wanger Co., Philadelphia, Pa.
The World—The Humphryes Mfg. Co., Mansfield, O.

VALVES, WATER CLOSET FLUSH, METER TYPE.

American Pin Co., Waterbury, Conn.
ARRG—Union Metal Works, Chelsea, Mass.
Auto—The Columbus Brass Co., Columbus, O.
Bloom Flusher Co., Tiffin, O.
Bowlus Flush Meter, Bowlus Jewel—Bowlus Mfg. Co., Springfield, O.
Chicago Pottery Co., Chicago, Ill.
Cleveland Flush Meter Co., Cleveland, O.
Crest—E. Stebbins Mfg. Co., Springfield, Mass.
Douglas, John, Co., The, Cincinnati, O. (Trade names—Aetna, Buckeye, Douglas.)
Eljer Co., Ford City, Pa.
Ernst Safety First—Ernst & Co., Newark, N. J.
Excelovalve Co., New York, N. Y.
Federal-Huber Co., Chicago, Ill. (Trade names—Aquameter, Arcade, Alpha, Boyle, Conway, Copley, Elba, La Salle, Watrous Aquameter, Watrous Pushometer.)
Flushovalve Co., Edgewater, N. J.
Georgia—Rundle-Spence Mfg. Co., Milwaukee, Wis.
Haas, Philip, Co., Dayton, O. (Trade names—Haas, Monitor.)
Hogan Mfg. Co., The, Hartford, Conn.
Hydraulic—Kalamazoo Sanitary Mfg. Co., Kalamazoo, Mich.
I. X. L. Pump & Mfg. Co., The, Philadelphia, Pa.
Jenkins Mfg. Co., Inc., Bloomfield, N. J. (Trade names—Rex, Upreso.)
Johns-Manville Corporation, New York, N. Y. "J-M."
Kelmor—Single Faucet & Flush Valve Co., Chicago, Ill.
Kenney Mfg. Co., The, New York, N. Y. (Trade names—Flushometer, Kenney.)
Mansfield—Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Meyer-Sniffen Co., New York, N. Y.
Milwaukee Flush Valve Co., Milwaukee, Wis.
Monarch—Republic Brass Co., The, Cleveland, O.
Mott, J. L., Iron Works, Trenton, N. J. (Trade names—Ocilla, Presto, Simplex.)
Neptune—Dalton-Ingersoll Mfg. Co., Boston, Mass.
Philco—Phillips Lead & Supply Co., Providence, R. I.
Republic Oil Regulator—Stringer Bros. Co., Chicago, Ill.
Robertshaw-Douglas—Robertshaw Thermostat Co., Youngwood, Pa.
Sanitas Mfg. Co., Boston, Mass.
Schroeder—Standard Metals Mfg. Co., Los Angeles, Cal.
Shoppe—Hedges & Bro., Newark, N. J.
Simplex—The Beaton & Cadwell Mfg. Co., New Britain, Conn.
Sloan Valve Co., Chicago, Ill. (Trade names—Royal, Sloan.)
Teck Mfg. Co., Chicago, Ill.
Standard Sanitary Mfg. Co., Pittsburgh, Pa. (Trade names—Metric, Vimometer.)
Walworth Company, Boston, Mass.
Watrous-Watometer—Imperial Brass Mfg. Co., Chicago, Ill.
White—White Flushing Valve Mfg. Co., Denver, Colo.
Yale—The Peck Bros. Co., New Haven, Conn.
Young—Acheson Mfg. Co., Rankin, Braddock P. O., Pa.

VALVES, WATER LEVEL CONTROL.

(See also "Regulators, Water Level.")

Fisher Governor Co., Inc., The, Marshalltown, Iowa.
Swartwout—The Swartwout Co., Cleveland, O.

VALVES, WATER MIXING, THERMOSTATIC.

Rooke, Leonard, Co., Providence, R. I.

VALVES, WATER RELIEF.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
The Ashton Valve Co., Boston, Mass. "Ashton."
Capitol Brass Works, Detroit, Mich.
Crane Co., Chicago, Ill.
Curtis—Julian d'Este Co., Boston, Mass.
Davis, G. M., Regulator Co., Chicago, Ill. "Davis."
Detroit—Detroit Lubricator Co., Detroit, Mich.
Garratt, W. T., & Co., Inc., San Francisco, Cal.
Golden-Anderson Valve Specialty Co., Pittsburgh, Pa. "Anderson."
Lonergan—J. E. Lonergan Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, O.
Powell, Wm., Co., The, Cincinnati, O.
Scott Valve & Mfg. Co., Detroit, Mich.
Triumph Valve Mfg. Co., Mansfield, O.
Walworth Company, Boston, Mass.
W. & McD.—Watson & McDaniel Co., Philadelphia, Pa.

VALVES, WHISTLE.

Capitol—Capitol Brass Works, Detroit, Mich.
Crane—Crane Co., Chicago, Ill.
Edna Brass Mfg. Co., Cincinnati, O.
Jenkins—Jenkins Bros., New York, N. Y.
Lonergan, J. E. Co., Philadelphia, Pa.
Lunkenheimer Co., Cincinnati, O.
National Gauge Co., Brooklyn, N. Y.
Powell, Wm., Co., The, Cincinnati, O.
Star—Star Brass Mfg. Co., Boston, Mass.
Walworth Company, Boston, Mass.

VALVES, Y.

Columbian Iron Works, Chattanooga, Tenn.
Crane Co., Chicago, Ill.
Couse—Eastwood Wire Mfg. Co., Belleville, N. J.
Jenkins—Jenkins Bros., New York, N. Y.
Ludlow—Ludlow Valve Mfg. Co., Troy, N. Y.
Lunkenheimer Co., The, Cincinnati, O.
Ohio Injector Co., The, Wadsworth, O. "O. I. C."
Powell Co., The Wm., Cincinnati, O.
Walworth Company, Boston, Mass.

VENTILATING SETS, PORTABLE.

Ilg Electric Ventilating Co., Chicago, Ill.
Massachusetts Blower Co., Watertown, Mass.
Sturtevant—B. F. Sturtevant Co., Hyde Park, Mass.

VENTILATORS, ROOF, ROTARY.

Mackenzie, Archibald, & Son, Saugus, Mass.

VENTILATORS, WATER CLOSET.

B. & C.—Electric Blower Co., Boston, Mass.
Boston Vent—J. L. Mott Iron Works, Trenton, N. J.
Cyclone—Sanitary Appliance Co., Neenah, Wis.
Savory, Inc., Buffalo, N. Y.

VENTS, AIR.

Eclipse—John C. Kupferle Foundry Co., St. Louis, Mo.
Essex Foundry, Newark, N. J.
Hays Mfg. Co., Erie, Pa. (with cleanout).
Kelly, Thos., & Bro., Chicago, Ill.
McRae & Roberts Co., Detroit, Mich.
Morrison Bros. Dubuque, Ia. (tank wagon).
Sanitary Company of America, Linfield, Pa.
Wolverine Foundry Co., Detroit, Mich.
Zurn, J. A., Mfg. Co., Erie, Pa.

VENTS, RADIATOR AND RISER.

Doody Vapor Heating Co., Inc., The, Boston, Mass.
Sterlo-Vacu—Sterling Engineering Co., Milwaukee, Wis.
Thermodisk—Jas. P. Marsh & Co., Chicago, Ill.

VENTS, ROOF, SOIL PIPE.

Globe Ventilator Co., Troy, N. Y.
Pittsburgh Gage & Supply Co., Pittsburgh, Pa.

VENTS, TRAP.

Smith—Fries & Co., Buffalo, N. Y.

VISE AND ANVIL.

American Scale Co., Kansas City, Mo.
Fisher & Norris, Trenton, N. J.
Hollands Mfg. Co., Erie, Pa.
Millers Falls Co., Millers Falls, Mass.
Parker, Charles, Company, The, Meriden, Conn. "Superior."
Stearns, E. C., & Co., Syracuse, N. Y.
Stewart—Chicago Flexible Shaft Co., Chicago, Ill.

VISE JAWS.

Armstrong Mfg. Co., The, Bridgeport, Conn.
Walworth Company, Boston, Mass.

VISE LINERS.

Ideal—Hohnsbeen Mfg. Co., Minneapolis, Minn.

VISES, BENCH.
(See also Vises, Quick Action.)

American Pipe Tool Co., Chicago, Ill.
Atlas—Atlas Vise Co., Inc., Lowville, N. Y.
Buckeye Saw & Vise Co., Cleveland, O.
Bonney—Bonney Forge & Tool Works, Inc., Allentown, Pa.
Columbian Vise & Mfg. Co., The, Cleveland, O. "Columbian."
Crane—Crane Co., Chicago, Ill.
Emmert Mfg. Co., Waynesboro, Pa.
Erie Tool Works, The, Erie, Pa.
Farmers—Athol Machine & Foundry Co., Athol, Mass.
Fisher & Norris, Trenton, N. J.
Goodell-Pratt Co., Greenfield, Mass.
Hollands Mfg. Co., Erie, Pa. "Hollands," "Keystone."
Lehigh—Bonney Forge & Tool Works, Allentown, Pa.
Luther Grinder Co., Milwaukee, Wis.
Millers Falls Co., Millers Falls, Mass.
Modern Grinder Mfg. Co., Milwaukee, Wis.
New Britain Machine Co., The, New Britain, Conn.
New Way—Fountain Equipment & Mfg. Co., Cincinnati, O.
Oval Slide—E. C. Stearns & Co., Syracuse, N. Y.
Parker Chas., Co., The, Meriden, Conn. "Parker," "Eclipse," "Hercules," "Superior," "Victor," "Parker's "Oval Slide."
Pexto—Peck, Stow & Wilcox Co., Southington, Conn.
Prentiss Vise Co., New York, N. Y. (Trade names—Bull Dog, Gypsy, Prentiss, Shepard.)
Reed Mfg. Co., Erie, Pa.
Rock Island Mfg. Co., Rock Island, Ill.
Sargent—Sargent & Co., New Haven, Conn.
South Haven Foundry & Machine Co., South Haven, Mich. "Herriman Quick Acting."
Star, Sterling—H. Boker & Co., Inc., New York, N. Y.
Stearns, E. C., & Co., Syracuse, N. Y.
Utility—Yost Mfg. Co., Meadville, Pa.
Walworth Company, Boston, Mass.
Western Tool & Mfg. Co., The, Springfield, O.
Yankee—North Bros. Mfg. Co., Philadelphia, Pa.
Yost—The Yost Mfg. Co., Meadville, Pa.

VISES, BLACKSMITHS', HORSESHOERS' AND BOX.

Bull Dog—Prentiss Vise Co., New York, N. Y.
Champion-De Arment Tool Co., Meadville, Pa.
Columbian Vise & Mfg. Co., The, Cleveland, O. (solid box). "Columbian."
Indian Chief—H. Boker & Co., New York, N. Y.
Iron City Star Brand—Iron City Tool Works, Ltd., Pittsburg, Pa.
New London Vise Works, New London, Conn. (hand forged).
Noyes, B. B., Co., Greenfield, Mass.
Quikwerk—Warren Tool & Forge Co., Warren, O.

VISES, CIRCULAR SAW.

Atkins, E. C., & Co., Indianapolis, Ind.
Huther Bros. Mfg. Co., Inc., Rochester, N. Y.

VISES, CLAMP.

Amateur, Farmers—Athol Machine & Fdy. Co., Athol, Mass.
Erie Tool Works, The, Erie, Pa.
Lehigh—Bonney Forge & Tool Works, Allentown, Pa.
Luther Grinder Co., Milwaukee, Wis.
Modern Grinder Mfg. Co., Milwaukee, Wis.
Phoenix—Phoenix Hardware Mfg. Co., Buffalo, N. Y.
Prentiss Vise Co., New York, N. Y. "Handy," "Shepard."
Stanley Rule & Level Co., New Britain, Conn.
Stearns—E. C. Stearns & Co., Syracuse, N. Y.

VISES, COMBINATION, BENCH AND PIPE.

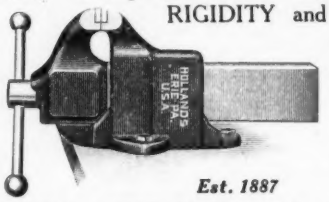
American—American Pipe Tool Co., Chicago, Ill.
Armstrong Mfg. Co., The, Bridgeport, Conn.
Barrett Machine Tool Co., Meadville, Pa.
Columbian Vise & Mfg. Co., The, Cleveland O. "Columbian."
Crawford—Jos. H. Young Co., Boston, Mass.
Erie Tool Works, The, Erie, Pa.
Fisher—Fisher & Norris, Trenton, N. J.
Goodell-Pratt Co., Greenfield, Mass.
Hollands—Hollands Mfg. Co., Erie, Pa.
Oswego Tool Co., The, Oswego, N. Y. "Parker Pattern," "Smith Pattern."
Oval Slide—Athol Machine Co., Athol, Mass.
Parker, Charles, Co., The, Meriden, Conn. "Parker's Superior."
Prentiss Vise Co., New York, N. Y. "Blake," "Prentiss," "Monarch," "Rex."
Reed—Reed Mfg. Co., Erie, Pa.
Rock Island Mfg. Co., Rock Island, Ill.
Star—H. Boker & Co., New York.
Tiger—Emmert Mfg. Co., Waynesboro, Pa.
Vanderman's—The Vanderman Mfg. Co., Willimantic, Conn.
Walworth Company, Boston, Mass. "Walworth," "Klingfast."
Western Tool & Mfg. Co., Springfield, Ohio.
Yost—The Yost Mfg. Co., Meadville, Pa.

VISES FOR DRILL PRESSES, MILLING MACHINES AND SHAPERS.

Armstrong-Blum Mfg. Co., Chicago, Ill. "Marvel."
Armstrong—Armstrong Bros. Tool Co., Chicago, Ill.
Badger Gas & Gasoline Engine Co., Kansas City, Kan.
Barker—Thomas Elevator Co., Chicago, Ill.
Bilton Machine Tool Co., Bridgeport, Conn.
Brightman Machine Co., The, Cleveland, O.
Brown Engineering Co., Reading, Pa.
Brown & Sharpe Mfg. Co., Providence, R. I.
Carter & Hakes Co., Winsted, Conn.
Champion—Western Tool & Mfg. Co., Springfield, O.
Cincinnati—Cincinnati Bickford Tool Co., Oakley, O.
Cochrane-Bly Co., Rochester, N. Y.
Diamond—The Adams Co., Dubuque, Ia.
Fixie—Manning, Maxwell & Moore, Inc., New York.
Fox Machine Co., Jackson, Mich.
G-S—Germanow-Simon Machine Co., Rochester, N. Y.
Graham Mfg. Co., The, Providence, R. I.
Martin, J. E., Tool & Die Co., Springfield, Ohio. "Gem."
Hannifin Mfg. Co., Chicago, Ill. (pneumatic).
Hartford Special Machinery Co., Hartford, Conn.
Ketchum—Skinner Chuck Co., New Britain, Conn.
Lueck, E. A., Co., Milwaukee, Wis.
Mantle—Mantle & Co., New York, N. Y.
Meriden Machine Tool Co., The, Meriden, Conn.
Modern Machine Tool Co., Jackson, Mich.
Mohn—W. D. Mohn & Co., Reading, Pa.
Nestor Mfg. Co., Inc., New York.
Modern-Bond Co., Wilmington, Del.
Morgan Vise Co., Chicago, Ill.
Oblique—Sellew Machine Tool Co., Pawtucket, R. I.
O. Z.—O. Zernickow, New York, N. Y.

HOLLANDS VISES

have a reputation for STRENGTH, RIGIDITY and SERVICE, and will increase your Vise Sales.



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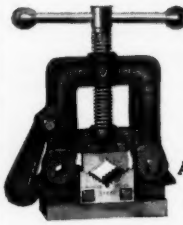
Est. 1887

HOLLANDS MFG. CO., Erie, Pa.

Armstrong Bros.

PIPE VISES



Hinge
Chain
or
Open Side
⅛ to 7"

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326 N. Francisco Ave.
Chicago

Penn Engineering Co., Reading, Pa. (quick adjusting).
Plunket Improved—J. E. Plunket Machine Co., Chicago, Ill.
Potter & Johnson Machine Co., Pawtucket, R. I.
Queen—Harker Mfg. Co., Cincinnati, O.
Royersford Foundry & Machine Co., Royersford, Pa.
Skinner Chuck Co., The, New Britain, Conn.
Sweetland—The Hoggson & Pettis Mfg. Co., New Haven, Conn.
Union Tool Co., Orange, Mass.
Yankee—North Bros. Mfg. Co., Philadelphia, Pa.
Yost—Yost Mfg. Co., Meadville, Pa.

VISES, FILERS.

Parker, Charles, Co., The, Meriden, Conn. "Superior," "Victor."

VISES, HAND AND PIN.

Billings & Spencer Co., The, Hartford, Conn. "Billings."
Boker—H. Boker & Co., New York, N. Y.
Bonney Forge & Tool Works, Allentown, Pa. "Bonney."
Bullock Mfg. Associates, Springfield, Mass.
Columbian Vise & Mfg. Co., The, Cleveland, O. "Columbian."
Dikeman Mfg. Co., The, Norwalk, Conn.
Goodell-Pratt Co., Greenfield, Mass.
Kilborn & Bishop Co., New Haven, Conn.
Millers Falls Co., Millers Falls, Mass.
Robinson, M. W., Mfg. Co., The, New York, N. Y.
Smith, Otis A., Rockfall, Wis.
Starrett Co., The L. S., Athol, Mass.
Stearns, E. C., & Co., Syracuse, N. Y.
Toledo—Toledo Pipe Threading Machine Co., The, Toledo, O.
U-Beam—Athol Machine & Foundry Co., **Athol,** Mass.

VISES, MACHINISTS'.

Adams Oval Slide—The Adams Co., Dubuque, Iowa.
American Scale Co., Kansas City, Mo.
Athol Machine & Foundry Co., Athol, Mass. Trade names—Athol, Standard, Starrett Patent, Simpson Quick Acting.
Barker, William & Co., Covington, Ky.
Barrett Machine Tool Co., Meadville, Pa.
Barnett Foundry & Machine Co., Irvington, N. J.
Champion Blower & Forge Co., Lancaster, Pa.
Columbian Vise & Mfg. Co., The, Cleveland, O. "Columbian."
Dropfo Wedgelok—The Fulton Drop Forge Co., **Canal Fulton, O.**
Emmert Mfg. Co., Waynesboro, Pa. **"Emmert,"** "Star," "Tiger."
Empire—Erie Tool Works, The, Erie, Pa.
Fisher—Fisher & Norris, Trenton, N. J.
Hollands Mfg. Co., Erie, Pa.
Hyde's—New London Vise Works, **New London, Conn**
Keystone—Hollands Mfg. Co., Erie, Pa.
Lowville Machine Co., Lowville, N. Y.
Mann Corporation, Kankakee, Ill.
Millers Falls Co., Millers Falls, Mass.
Modern-Bond Co., Wilmington, Del.
Morgan Vise Co., Chicago, Ill.
Nichols, Wm. S., Hoosick Falls, N. Y
O-Z—O. Zernickow Co., New York, N. Y.
Oswego—Oswego Tool Co., Oswego, N. Y.
Parker, Charles, Co., The, Meriden, Conn. (Trade names—Parker, Double Swivel, Eclipse, Hercules, Superior, Victor.)
Prentiss Vise Co., New York, N. Y. "Bull Dog," "Prentiss Patent," "Rapid Transit," "Autoservice."
Reed Mfg. Co., Erie, Pa.
Rock Island Mfg. Co., Rock Island, Ill. "Radiovise."
Star—H. Boker & Co., New York, N. Y.
600—Athol Machine & Fdy. Co., Athol, Mass.
Simplex Tool Co., Woonsocket, R. I.
Smith Machine Co., H. B., Smithville, N. J.
Utility—Brown Engineering Co., Reading, Pa.
Boker, H., & Co., Inc., New York, N. Y. "Lowville."
Walworth Company, Boston, Mass.
Western Tool & Mfg. Co., Springfield, O. "Victor."
Yankee—North Bros. Mfg. Co., Philadelphia, Pa.
Yost Ajax—Yost Mfg. Co., Meadville, Pa.

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Crawford—Jos. H. Young Co., Boston, Mass.
Dean—H. W. Clark Co., Mattoon, Ill.
Hollands—Hollands Mfg. Co., Erie, Pa.
Lockhart—R. Jas. Lockhart, Pittsburgh, Pa.
Reed Mfg. Co., Erie, Pa. "Reed."
Smoothgrips—H. G. Butt Mfg. Co., Boston, Mass.
Warnock—Warnock Mfg. Co., Worcester, Mass.

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Crown Die & Tool Co., Chicago, Ill. "Crown."
Erie Tool Works, The, Erie, Pa.
Nye Tool & Machine Works, Chicago, Ill. "Nye."
Plymouth Mfg. Co., Chicago, Ill. "Gerolo."
Vulcan—J. H. Williams & Co., Buffalo, N. Y.
Yost—Yost Manufacturing Co., Meadville, Pa.

VISES, PIPE, YOKE, HINGED AND SOLID.
(See also "Vises, Pipe, Chain.")

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Armstrong Bros. Tool Co., Chicago, Ill.
Armstrong Mfg. Co., The, Bridgeport, Conn.
Barrett Machine Tool Co., Meadville, Pa.
Climax—The C. M. Kemp Mfg. Co., Baltimore, Md.
Columbian Vise & Mfg. Co., The, Cleveland, O. "Columbian."
Crane—Crane Co., Chicago, Ill.
Crown—Crown Die & Tool Co., Chicago, Ill.
Dempster Mill Mfg. Co., Beatrice, Neb.
Erie—Erie Tool Works, The, Erie, Pa.
G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.
Hinman—D. A. Hinman & Co., Sandwich, Ill.
Hull—Columbus Machine Co., Columbus, Ind.
Indispensable—Bonney Forge & Tool Co., Allentown, **Pa.**
Jarecki Mfg. Co., Erie, Penna.
Keystone—Hollands Mfg. Co., Erie, Pa.
Mann Corporation, Kankakee, Ill.
Nye—Nye Tool & Machine Works, Chicago, Ill.
Oster Mfg. Co., The, Cleveland, O.
Oswego—The Oswego Tool Co., Oswego, N. Y.
Parker's—The Charles Parker Co., Meriden, Conn.
Prentiss Vise Co., New York, N. Y. (Trade names—Magic, Prentiss.)
Providence—Grinnell Co., Providence, R. I.
Reed—Reed Mfg. Co., Erie, Pa. (self-locking).
Ridge Tool Co., The, Elyria, O. "Ridgid."
Rock Island Mfg. Co. Rock Island, Ill.
Saunders, D., Sons, Inc., Yonkers, N. Y.
Searls—Spencer Regulator Co., Salem, Mass.
Smith—The H. B. Smith Mfg. Co., Westfield, Mass.
Starbuck—R. M. Starbuck & Sons, Hartford, Conn.
Toledo—Toledo Pipe Threading Machine Co., The Toledo, O. (hinged & solid).

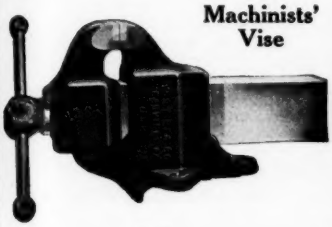
24 STYLES

YOST VISES

109 SIZES

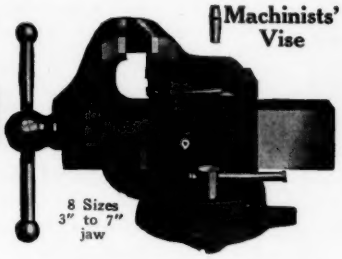
GUARANTEED THROUGHOUT

Machinists' Vise



12 Sizes
2" to 8½" jaw

Machinists' Vise

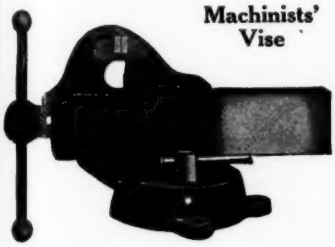


8 Sizes
3" to 7" jaw

Combination Pipe Vise

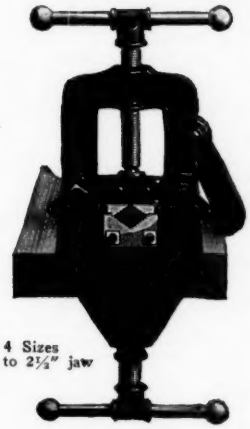
4 Sizes
3½" to 6" jaw

Machinists' Vise



12 Sizes
2" to 8½" jaw

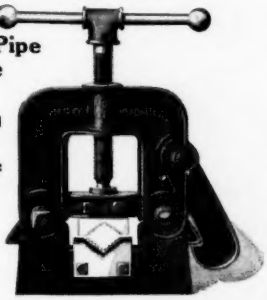
Self-Locking Clamp Kit Vise

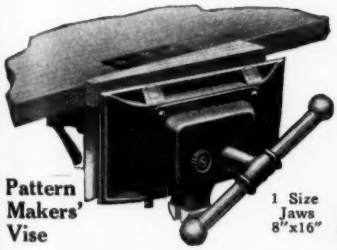


4 Sizes
⅜" to 2½" jaw

Hinge Pipe Vise

Heavy and Light
12 Sizes
Holds Pipe
⅛" to 12"





Pattern Makers' Vise

1 Size
Jaws
8"x16"

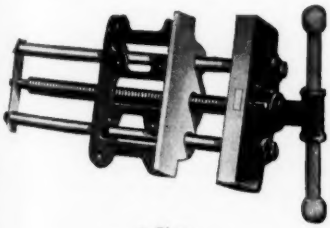
Drill Press Vise

2 Sizes
3½" and 5" jaw

4 Sizes
Holds Pipe
⅛" to 8"

Chain Pipe Vise

Manual Training Vise

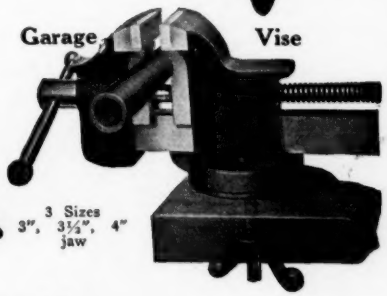


2 Sizes
7" and 10" jaw

Gas Soldering Furnace

Single and
Double Burner

Garage Vise



3 Sizes
3", 3½", 4"
jaw

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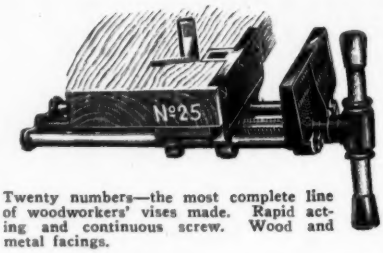
YOST MANUFACTURING COMPANY, MEADVILLE, PA., U. S. A.

Established 1908

TOLES Rapid Acting Vises

For All Woodworkers



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Warnock Strap Vise—Warnock Mfg. Co., Worcester, Mass.
Yost—Yost Mfg. Co., Meadville, Pa.

VISES, PIPE, TOOL KIT AND POST

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Erie Tool Works, The, Erie, Pa.
Hollands Mfg. Co., Erie, Pa.
Q-S Sanitary Mfg. Co., Waterloo, Iowa.

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Atlas Press Co., Kalamazoo, Mich.
Ekern-Turk Mfg. Co., Inc., Pipestone, Minn.
Rock Island Mfg. Co., Rock Island, Ill.

VISES, PNEUMATIC.

Canton Pneumatic Tool Co., The, Canton, O.
M. E. C.—Manufacturers Equipment Co., Chicago, Ill.

VISES, PORTABLE.

Fisher & Norris, Trenton, N. J.
Nutyp—Atlas Vise Co., Inc., Lowville, N. Y.
Williams, J. H., & Co., Buffalo, N. Y.

VISES, QUICK ACTION.

Abernathy Vise & Tool Co., The, Chicago, Ill. "Roller Nut."
Carter & Hakes Machine Co., The, Winsted, Conn.
Christiansen, C., Chicago, Ill.
Columbian Vise & Mfg. Co., The, Cleveland, O. "Columbian."
Fisher & Norris, Trenton, N. J.
Nestor—Nestor Mfg. Co., New York, N. Y.
Rapid Transit—Prentiss Vise Co., New York, N. Y.
Richards-Wilcox—Richards-Wilcox Mfg. Co., Aurora, Ill.
Rock Island Mfg. Co., Rock Island, Ill.
South Haven Foundry & Machine Co., South Haven, Mich. "Herriman."
Toles, W. C., Co., Woodstock, Ill.
Upton & Gilman Machine Co., Lowell, Mass.
Velox—Atlas Vise Co., Inc., Lowville, N. Y.
Yost Mfg. Co., Meadville, Pa.

VISES, RADIATOR.

Peterson—The Illinois Iron & Bolt Co., Carpentersville, Ill.

VISES, SAW.

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Disston & Sons, Inc., Henry, Philadelphia, Pa.
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Grammes, L. F., & Sons, Allentown, Pa.
Hargrave—The Cincinnati Tool Co., Cincinnati, O.
Machinery Company of America, Big Rapids, Mich.
Manco Mfg. Co., Bradley, Ill.
Moore Bros., Jamestown, N. Y.
Rock Island Mfg. Co., Rock Island, Ill.
Stearns & Co., E. C., Syracuse, N. Y. (Trade names—Stearns, Wentworth Pattern.)

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John-Sons Gage Works, Hartford, Conn.

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VISES, SHAPER.

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Potter & Johnston Machine Co., Pawtucket, R. I.

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F. & R., Star—H. Boker & Co., New York.
Hollands—Hollands Mfg. Co., Erie, Pa.
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Parker—The Charles Parker Co., Meriden, Conn.
Prentiss Vise Co., New York, N. Y.
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Rock Island Mfg. Co., Rock Island, Ill.
Yost's—Yost Mfg. Co., Meadville, Pa.

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Columbian Vise & Mfg. Co., The, Cleveland, O. "Columbian."
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Fisher & Norris, Trenton, N. J. "Fisher."
Hollands Mfg. Co., Erie, Pa. "Hollands," "Keystone."
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Millers Falls Co., Millers Falls, Mass.
Morgan Vise Co., Chicago, Ill.
Parker, Charles, Company, The, Meriden, Conn. "Eclipse," "Victor."
Prentiss Vise Co., New York, N. Y. "Blake," "Bull Dog," "Prentiss Patent."
Reed Mfg. Co., Erie, Pa.
Rockford Mitre Box Co., Rockford, Ill.
Rock Island Mfg. Co., Rock Island, Ill.
Star—H. Boker & Co., Inc., New York, N. Y.
Toles, W. C., Co., Woodstock, Ill.
Universal—Emmert Mfg. Co., Waynesboro, Pa.
Yost Quick Acting and Universal—Yost Mfg. Co., Meadville, Pa.

VOLTMETERS.

Bristol Company, The, Waterbury, Conn.

VULCANIZERS.

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Smith, Samuel & Son Co., Paterson, N. J.
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Peoria Overhead Washer Co., Peoria, Ill.
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Frost Mfg. Co., The, Kenosha, Wis.
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Right—The Gasket Supply Co., Philadelphia, Pa.
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Elgin Brass Co., New York, N. Y.
Excelsior Leather Washer Mfg. Co., Rockford, Ill. "X L."
Russell, John M., Mfg. Co., Naugatuck, Conn.
Simco—Simplex Mfg. Co., Auburn, N. Y.
Waterbury Mfg. Co., Waterbury, Conn.

WASHERS, FELT AND FABRIC.

Advance Felt & Cutting Co., Chicago, Ill.
Algco—Auburn Leather Goods Co., Hartford, Conn.
American Washer Works, Brooklyn, N. Y.
The L. J. Barwood Mfg. Co., Stoneham, Mass. "Barwood."
Barco—V. H. Barwood Mfg. Co., Boston, Mass.
Booth—The Booth Felt Co., Brooklyn, N. Y.
Brawley, T. R., Brooklyn, N. Y.
Braunsdorf, Geo. W., New York, N. Y.
Excelsior Leather Washer Mfg. Co., Rockford, Ill. "X L."
Fieldco—R. B. Field & Co., Worcester, Mass.
Hoffeld, R., & Co., Buffalo, N. Y.
House & Sons, Chas. W., Unionville, Conn.
Miller & West, Dedham, Mass.
Phoenix Specialty Mfg. Co., Inc., New York, N. Y.
Quadrigo Mfg. Co., The, Chicago, Ill.
Ramshead—Western Felt Works, Chicago, Ill.
Rhodes, James H., & Co., Long Island City, N. Y.
Right—The Gasket Supply Co., Philadelphia, Pa.
Simco—Simplex Mfg. Co., Auburn, N. Y.
Star Felt Cutting Co., The, Brooklyn, N. Y.
Sutherland Leather & Felt Co., Detroit, Mich.
Tingue, Brown & Co., New York, N. Y.
Waterproof Felt Products Co., Inc., Chicago, Ill.

WASHERS, FIBRE.

Adams & Allen, Fort Worth, Tex.
Advance Felt & Cutting Co., Chicago, Ill.
Algco—Auburn Leather Goods Co., Hartford, Conn.
American Vulcanized Fibre Co., Wilmington, Del.
American Washer Works, Brooklyn, N. Y.
Barco—V. H. Barwood Mfg. Co., Boston, Mass.
Barwood, L. J., Mfg. Co., The, Stoneham, Mass. (hard and flexible). "Barwood."
Brawley, T. R., Brooklyn, N. Y. (flexible).
Butterworth Supply Co., Philadelphia, Pa.
Continental Fibre Co., Newark, Del.
Diamond State Fibre Co., Bridgeport, Pa.
Excelsior Leather Washer Mfg. Co., Rockford, Ill. "X L."
Fieldco—R. B. Field & Co., Worcester, Mass.
Frank Bros., New York, N. Y. (hard).
Good Mfg. Co., Inc., New York, N. Y.
Graham, John D., Lindenhurst, N. Y.
Gray Egyptian—Delaware Hard Fibre Co., Wilmington, Del.
Holland Rubber Co., New York, N. Y.
Humphrey, H. W., Unionville, Conn.
Miller & West, Dedham, Mass.
Phoenix Specialty Mfg. Co., New York, N. Y.
Quadrigo Mfg. Co., The, Chicago, Ill.
Rhode Island Washer Co., Valley Falls, R. I.
Right—The Gasket Supply Co., Philadelphia, Pa.
Standard Fibre Co., Somerville, Mass.
Vellumoid—Fibre Finishing Co., Worcester, Mass.
Wilmington Fibre Specialty Co., New Castle, Del.

WASHERS AND GASKETS, GAGE GLASS.

Acme Bulb—Gilbert & Co., Hyattsville, Md.
Albion—Albion Mfg. Co., Seattle, Wash.
Algco—Auburn Leather Goods Co., Hartford, Conn.
Brooks—L. I. Breakey, Marshall, Mich.
Canfield Rubber Co., The, Bridgeport, Conn.
Canfield, H. O., Co., The, Bridgeport, Conn. (Trade names—Canfield, Perfect, Red Fox.)
Chicago Rawhide Mfg. Co., The, Chicago, Ill.
Cincinnati Gasket & Packing Co., Cincinnati, O.
Cincinnati Rubber Mfg. Co., The, Cincinnati, O.
Combination Rubber Mfg. Co., The, Bloomfield, N. J.
Diamond Rubber Co., Akron, O.
Double Service Packing Co., Philadelphia, Pa.
Durabla Mfg. Co., New York, N. Y.
Ernst & Co., Newark, N. J.
Excelsior Leather Washer Mfg. Co., Rockford, Ill. "X L."
General Asbestos & Rubber Co., Charleston, S. C.
Gilbert's—Morse Grate Bar Co., Providence, R. I.
Hudson Mechanical Rubber Co., New York, N. Y.
Jenkins Bros., New York, N. Y. "Jenkins Bros."
Johnson, Henry, Co., The, Jersey City, N. J.
Judd & Leland Mfg. Co., Clifton Springs, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Lubron Co., The, Everett, Mass.
Marvel—Allen Packing Co., Collingswood, N. J.
Marvel—La Favorite Rubber Mfg. Co., Paterson, N. J.
McRae & Roberts Co., The, Detroit, Mich.
Mechanical Rubber Co., The, Cleveland, Ohio.
New York Belting & Packing Co., New York, N. Y.
Perry's—La Favorite Rubber Mfg. Co., Paterson, N. J.
Quaker City Rubber Co., Philadelphia, Pa.
Salisbury & Co., Inc., W. H., Chicago, Ill.
Sargent Company, Chicago, Ill.
Self-Packing—Crandall Packing Co., Palmyra, N. Y.
Simco—Simplex Mfg. Co., Auburn, N. Y.
Standard Packings Co., Marion Bldg., Cleveland, O.
United States Rubber Co., New York, N. Y.
Wilbow—Williams-Bowman Rubber Co., Cicero, Ill.

WASHERS, GALVANIZED.

American Nut & Bolt Fastener Co., Pittsburgh, Pa.
Bethlehem Steel Co., Bethlehem, Pa.
Fieldco—R. B. Field & Co., Worcester, Mass.
Oliver Iron & Steel Corp., Pittsburgh, Pa.
St. Louis Screw Co., St. Louis, Mo.
Wilcox, Crittenden & Co., Middletown, Conn.

WASHERS, HOSE.

Algco—Auburn Leather Goods Co., Hartford, Conn.
Barwood—The L. J. Barwood Mfg. Co., Stoneham, Mass.
Booth—The Booth Felt Co., Brooklyn, N. Y.
Canfield, The H. O., Co., Bridgeport, Conn.
Canfield Rubber Co., The, Bridgeport, Conn.
Chicago Rawhide Mfg. Co., The, Chicago, Ill.
Cincinnati Rubber Mfg. Co., Cincinnati, O.
Diamond Rubber Co., Inc., Akron, O.
Excelsior Leather Washer Mfg. Co., Rockford, Ill. "X L."
Fieldco—R. B. Field & Co., Worcester, Mass.
Forest City Leather Washer Co., Rockford, Ill.
Lubron Co., The, Everett, Mass.
Marston, I. G., & Co., Boston, Mass.
Mechanical Rubber Co., The, New York, N. Y.
Neverloose—Mueller Co., Decatur, Ill.
New York Belting & Packing Co., New York, N. Y.
Quadrigo Mfg. Co., The, Chicago, Ill.
Quaker City Rubber Co., Philadelphia, Pa.

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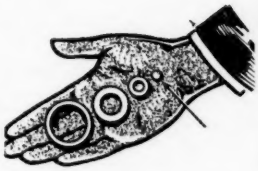

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Salisbury, W. H., & Co., Inc., Chicago, Ill.
Simco—Simplex Mfg. Co., Auburn, N. Y.
U. S. Indestructible Gasket Co., Brooklyn, N. Y.

WASHERS, HYDRANT VALVE.

Canfield Rubber Co., The, Bridgeport, Conn.
Kupferle, John C., Foundry Co., St. Louis, Mo.
Rockford Leather Washer Co., Rockford, Ill.

WASHERS, LEATHER AND RAWHIDE.

Adams & Allen, Fort Worth, Tex.
Advance Felt & Cutting Co., Chicago, Ill.
Algco—Auburn Leather Goods Co., Hartford, Conn.
American Washer Works, Brooklyn, N. Y.
Barwood—The L. J. Barwood Mfg. Co., Stoneham, Mass.
Barco—V. H. Barwood Mfg. Co., Boston, Mass.
Best Leather Nut Co., Stoneham, Mass.
Booth—The Booth Felt Co., Brooklyn, N. Y.
Chibeco—Chicago Belting Co., Chicago, Ill.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Eagle Counter & Leather Co., The, Cincinnati, O.
Excelsior Leather Washer Mfg. Co., Rockford, Ill.
"X L."
Fieldco—R. B. Field & Co., Worcester, Mass.
Forest City Leather Washer Co., Rockford, Ill.
Frank Bros., New York, N. Y.
Gibraltar—Burton Greene Leather Co., Chicago, Ill.
Good Mfg. Co., Inc., New York, N. Y.
Graton & Knight Co., Worcester, Mass.
Graham, John D., Lindenhurst, N. Y.
Hess & Hopkins Leather Co., Rockford, Ill.
Hide, Leather & Belting Co., Indianapolis, Ind.
Holland Rubber Co., New York, N. Y.
Hoffeld & Co., R., Buffalo, N. Y.
Hudson Belting Co., Worcester, Mass.
Judd & Leland Mfg. Co., Clifton Springs, N. Y.
Kendrick Valve & Washer Co., Syracuse, N. Y.
Kupferle, John C., Foundry Co., St. Louis, Mo.
Ladew, Edward R., Co., New York, N. Y.
Leather Parts Co., Indianapolis, Ind.
Marston, I. G., & Co., Boston, Mass.
New Red, Heiland's—Garrison-Heiland Corp., New York.
New York Leather Belting Co., New York, N. Y.
Nott, W. S., Co., Minneapolis, Minn.
Page Belting Co., Concord, N. H.
Phoenix Specialty Mfg. Co., New York, N. Y.
Quadriga Mfg. Co., The, Chicago, Ill.
Rahmann, Geo., & Co., New York, N. Y.
Reinhold Belting & Strap Co., Inc., Brooklyn, N. Y.
Rhoads, J. E., & Sons, Philadelphia, Pa.
Rhode Island Washer Co., Valley Falls, R. I.
Right—The Gasket Supply Co., Philadelphia, Pa.
Schieren—Chas. A. Schieren & Co., New York (leather).
Simco—Simplex Mfg. Co., Auburn, N. Y.
Sutherland Leather & Felt Co., Detroit, Mich.
Victor—New York Washer Works, New York, N. Y.
Vim—E. F. Houghton & Co., Philadelphia, Pa.
W. S. P.—Western Packing & Supply Co., Chicago, Ill.
Wear Well—Horace G. Preston Co., Detroit, Mich.

WASHERS, LOCK

American Nut & Bolt Fastener Co., Pittsburgh, Pa.
Handy Assortment—Heiz & Heiz, New York, N. Y.
Heartley Machine, Variety Iron & Tool Works, Toledo, Ohio.
Hobbs Mfg. Co., Worcester, Mass.
Keystone Positive—The Positive Lock Washer Co., Newark, N. J.

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Mansfield Lock Washer Co., Mansfield, O.
Milwaukee Lock Washer Co., Milwaukee, Wis.
Never Slip—National Umbrella Frame Co., Lock Washer Div., Philadelphia, Pa.
Quadriga Mfg. Co., The, Chicago, Ill.
Reliance—Reliance Mfg. Co., Massillon, O.
Shakeproof Lock Washer Co., Chicago, Ill. "Shakeproof."
Spillman—Clendennin Bros., Baltimore, Md.
St. Louis Screw Co., St. Louis, Mo.
Verona Tool Works, Pittsburgh, Pa.
Washburn Co., The, Wire Goods Co. Div., Worcester, Mass.

WASHERS, NAIL HEAD AND ROOFING.

Chicago Rawhide Mfg. Co., The, Chicago, Ill.
Excelsior Leather Washer Mfg. Co., Rockford, Ill. "X L."
Fieldco—R. B. Field & Co., Worcester, Mass.
Hoyt Metal Co., St. Louis, Mo.
Peck—Peck, E. E., Co., Inc., Medina, N. Y.
Smith & Hemenway Co., Inc., Irvington, N. J. "Red Devil."

WASHERS, PASTEBOARD, PAPER AND CORK.

Advance Felt & Cutting Co., Chicago, Ill.
Algco—Auburn Leather Goods Co., Hartford, Conn.
American Washer Works, Brooklyn, N. Y.
Armstrong Cork Co., & Armstrong Cork & Insulation Co., Pittsburgh, Pa.
Barwood—The L. J. Barwood Mfg. Co., Stoneham, Mass.
Barco—V. H. Barwood Mfg. Co., Boston, Mass.
Booth—The Booth Felt Co., Brooklyn, N. Y.
Davis, John C., Rochester, N. Y.
Excelsior Leather Washer Mfg. Co., Rockford, Ill. "X L."
Fieldco—R. B. Field & Co., Worcester, Mass.
Goetze Gasket & Packing Co., New Brunswick, N. J.
Graham, John D., Lindenhurst, N. Y.
Holland Rubber Co., New York, N. Y.
Phoenix Specialty Mfg. Co., New York, N. Y.
Right—Gasket Supply Co., Philadelphia, Pa.
Simco—Simplex Mfg. Co., Auburn, N. Y.

WASHERS, PUMP.

Algco—Auburn Leather Goods Co., Hartford, Conn.
American Washer Works, Brooklyn, N. Y.
Barwood—The L. J. Barwood Mfg. Co., Stoneham, Mass.
Canfield Rubber Co., The, Bridgeport, Conn.
Chicago Belting Company, Chicago, Ill.
Chicago Rawhide Mfg. Co., The, Chicago, Ill.
Excelsior Leather Washer Mfg. Co., Rockford, Ill. "X L."
Fieldco—R. B. Field & Co., Worcester, Mass.
Forest City Leather Washer Co., Rockford, Ill.
Frank Bros., New York, N. Y.
Kendrick Valve & Washer Co., Syracuse, N. Y.
Page Belting Co., Concord, N. H.
Quadriga Mfg. Co., The, Chicago, Ill.
Reinhold Belting & Strap Co., Brooklyn, N. Y.
Simco—Simplex Mfg. Co., Auburn, N. Y.
Williams, I. B., & Sons, Dover, N. H.

WASHERS, RUBBER.

Algco—Auburn Leather Goods Co., Hartford, Conn.
American Brass Novelty Co., Grand Haven, Mich.
American Washer Works, Brooklyn, N. Y.
Barwood—The L. J. Barwood Mfg. Co., Stoneham, Mass.
Barco—V. H. Barwood Mfg. Co., Boston, Mass.
Best—New York Washer Works, New York, N. Y.
Boss—The B. F. Goodrich Co., Akron, O.
Boston Woven Hose & Rubber Co., Cambridge, Mass. "Sterling."
Canfield, The H. O., Co., Bridgeport, Conn.
Canfield Rubber Co., The, Bridgeport, Conn.
Cincinnati Rubber Mfg. Co., The, Cincinnati, O.
Cad—Standard Shop Equipment Co., Philadelphia, Pa.
Coldren Rubber Co., Lebanon, Pa.
Coleman's—Allan J. Coleman, Chicago, Ill. (bibb).
Diamond Rubber Co., Inc., The, Akron, O.
Double Service Packing Co., Philadelphia, Pa.
Dumaco—Durst Mfg. Co., New York, N. Y.
Frank Bros., New York, N. Y.
Graham, John D., Lindenhurst, N. Y.
Garrison-Heiland Corp., New York, N. Y.
Goodrich, B. F., Rubber Co., Akron, O.
Goodyear Tire & Rubber Co., Akron, Ohio.
Hoffeld, R., & Co., Buffalo, N. Y.
Holland Rubber Co., New York, N. Y.
Hudson Mechanical Rubber Co., New York, N. Y.
Jenkins Bros.—Jenkins Bros., New York, N. Y.
Johnson Co., The Henry, Jersey City, N. J.
Kendrick Valve & Washer Co., Syracuse, N. Y.
Marston & Co., I. G.; Boston, Mass.
M. B.—Montgomery Bros., Inc. Philadelphia, Pa.
Mechanical Rubber Co., The, Cleveland, Ohio.
Miller & West Co., Dedham, Mass.
Mineral Rubber Products Co., The, Moline, Ill.
Mulconroy Co., Inc., Philadelphia, Pa.
New York Belting & Packing Co., New York, N. Y.
Norwalk Mfg. Co., East Norwalk, Conn.
Our Own—The H. O. Canfield Co., Bridgeport, Conn.
Phoenix Specialty Mfg. Co., New York, N. Y.
Quadriga Mfg. Co., The, Chicago, Ill.
Quaker City Rubber Co., Philadelphia, Pa.
Republic Rubber Co., The, Youngstown, O.
Right—Gasket Supply Co., Philadelphia, Pa.
Schacht Rubber Mfg. Co., Huntington, Ind.
Standard Nut & Bolt Co., Valley Falls, R. I.
Union Rubber & Asbestos Co., Trenton, N. J.
United & Globe Rubber Co., Trenton, N. J.
United States Rubber Co., New York, N. Y.
Wilbow—Williams-Bowman Rubber Co., Cicero, Ill.

WASHERS, SIPHON VALVE.

Algco—Auburn Leather Goods Co., Hartford, Conn.
Barwood, L. J., Co., The, Stoneham, Mass.
Canfield, H. O., Co., The, Bridgeport, Conn.
Canfield Rubber Co. The, Bridgeport, Conn.
Fieldco—R. B. Field & Co., Worcester, Mass.
Forest City Leather Washer Co., Rockford, Ill.
Good Mfg. Co., Inc., New York, N. Y.
Goodrich, B. F., Rubber Co., The, Akron, O.
Hoffeld, R. & Co., Buffalo, N. Y.
Tribune—Continental Rubber Works, Erie, Pa.
Williams-Bowman Rubber Co., Cicero, Ill.
Woodward-Wanger Co., Philadelphia, Pa.

WASHERS, SLIP JOINT.

Algco—Auburn Leather Goods Co., Hartford, Conn.
American Brass Novelty Co., Grand Haven, Mich.
Canfield, H. O., Co., The, Bridgeport, Conn.
Canfield Rubber Co., The, Bridgeport, Conn.
Fieldco—R. B. Field & Co., Worcester, Mass.
Quaker City Rubber Co., Philadelphia, Pa.
Simco—Simplex Mfg. Co., Auburn, N. Y.
Tribune—Continental Rubber Works, Erie, Pa.
Woodward-Wanger Co., Philadelphia, Pa.

WASHERS, SPUD, WATER CLOSET.

Canfield Rubber Co., The, Bridgeport, Conn.
Canfield, H. O., Co., The, Bridgeport, Conn.
Durst Mfg. Co., The, New York, N. Y.
Fieldco—R. B. Field & Co., Worcester, Mass.
Frank Bros., New York, N. Y.
Goodrich, B. F., Rubber Co., The, Akron, O.
Sexauer, J. A., Mfg. Co., New York, N. Y.
Woodward-Wanger Co., Philadelphia, Pa.
Williams-Bowman Rubber Co., Cicero, Ill.

WASHERS, STEEL, FLAT.

Allegheny Steel Co., Pittsburg, Pa.
American Nut & Bolt Fastener Co., Pittsburgh, Pa.
Auburn Ball Bearing Co., Rochester, N. Y.
Bethlehem Steel Co., Bethlehem, Pa.
Cad—Standard Shop Equipment Co., Philadelphia, Pa.
Cleveland Wrought Products Co., Cleveland, O.
Cressman, N. G., Co., Philadelphia, Pa.
Detroit Stamping Co., Detroit, Mich.
Heiz & Heiz, New York, N. Y. "Handy Assortment."
Haskell, Wm. H., Mfg. Co., The, Pawtucket, R. I.
Hobbs Mfg. Co., Worcester, Mass.
Humphrey, H. W. Unionville, Conn.
Kohler, F. E., Co., Canton, O.
Massachusetts Machine Shop Co., Inc., Boston, Mass.
New England Bolt Co., Everett, Mass.
Nicetown Plate Washer Co., Inc., Philadelphia, Pa.
North Penn Washer Co., Philadelphia, Pa.
Oliver Iron & Steel Corp., Pittsburgh, Pa.
Phoenix Specialty Mfg. Co., New York, N. Y.
Quadriga Mfg. Co., The, Chicago, Ill.
Republic Iron & Steel Co., Youngstown, O.
Right—Gasket Supply Co., Philadelphia, Pa.
St. Louis Screw Co., St. Louis, Mo.
Standard Bolt & Nut Co., Valley Falls, R. I.
Stanley Works, The, New Britain, Conn.
Western Automatic Machine Screw Co., Elyria, Ohio
Wrought Washer Mfg. Co., Milwaukee, Wis.

WASHERS, STREET.
(See also "Hydrants.")

American Foundry & Mfg. Co., St. Louis, Mo. "American," "Alaska," "California," "McNamara," "Murdock," "National," "T. E."
Barnes Mfg. Co., The, Mansfield, O.
Chandler Pump Co., Cedar Rapids, Ia. "Hawkeye."
Chapman—J. B. Hauer, Inc., Brooklyn, N. Y.
Clow—James B. Clow & Sons, Chicago, Ill.
Crane Co., Chicago, Ill.
Douglas—W. & B. Douglas, Middletown, Conn.
Genuine Murdock—The Murdock Mfg. & Supply Co., Cincinnati, O.
Goulds Mfg. Co., Seneca Falls, N. Y. "Crescent," "No-Shock," "Star," "Sun."
Hays Mfg. Co., Erie, Pa. "McNamara Original."

Humphryes Mfg. Co., The, Mansfield, O.
Kupferle, John C., Foundry Co., St. Louis, Mo. "California," "Total Eclipse," "McNamara."
Ludlow Valve Mfg. Co., The, Troy, N. Y.
Mast, Foos & Co., Springfield, O. "Buckeye."
M. Pattern—Illinois Malleable Iron Co., Chicago, Ill.
Nichol & Co., Thos. J., Cincinnati, O.
Richardson, Edro, Brass Co., Baltimore, Md.
Savill's, Thomas, Sons, Philadelphia, Pa.
Standard Sanitary Mfg. Co., Pittsburgh, Pa. "Murdock Pattern," "Star."

WASHERS, TRAP.

Field, R. B., & Co., Worcester, Mass.

WASHERS, UNION.

Algco—Auburn Leather Goods Co., Hartford, Conn.
Barwood, L. J., Mfg. Co., Stoneham, Mass.
Canfield Rubber Co., The, Bridgeport, Conn.
Canfield, H. O., Co., The, Bridgeport, Conn.
Delaware Hard Fibre Co., Wilmington, Del.
Dumaco—Durst Mfg. Co., New York, N. Y.
Excelsior Leather Washer Mfg. Co., Rockford, Ill. "X L."
Fieldco—R. B. Field & Co., Worcester, Mass.
Judd & Leland Mfg. Co., Clifton Springs, N. Y.
Sexauer, J. A., Mfg. Co., New York, N. Y.
Simco—Simplex Mfg. Co., Auburn, N. Y.

WASHERS, WASTE AND OVERFLOW, RUBBER.

Canfield Rubber Co., Bridgeport, Conn. (Trade names—Bi Transit, Electric, Ideal, Model, Unique.)

WASHERS, WOOD.

Migrum—Bound Brook Oil-Less Bearing Co., Bound Brook, N J.
Nevva-oil—Neveroil Bearing Co., Wakefield, Mass.

WASHERS, WROUGHT IRON.

Allegheny Steel Co., Pittsburgh, Pa.
American Bolt Co., Birmingham, Ala.
American Equipment Co., Norristown, Pa.
American Nut & Bolt Fastener Co., Pittsburgh, Pa.
Ames, W. & Co., Jersey City, N. J.

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Cleveland, Ohio

Bettcher Stamping & Mfg. Co., Cleveland, O.
Bourne-Fuller Co., The, Cleveland, O. and Unionville, Conn.
Bremen Metal Stamping Co., Logan, O.
Buckeye—The Lamson & Sessions Co., Cleveland, O.
Clark Bros. Bolt Co., Millidale, Conn.
Cleveland Wrought Products Co., Cleveland, O.
Columbus Bolt Works Co., The, Columbus, O.
Dayton Malleable Iron Co., Dayton, Ohio.
Fischer & Hayes Rope & Steel Co., Chicago, Ill.
Graham Bolt & Nut Co., Pittsburgh, Pa.
Haskell Mfg. Co., W. H., Pawtucket, R. I.
Hitner's, Henry A., Sons Co., Philadelphia, Pa.
Hoopes & Townsend Co., Philadelphia, Pa.
Hubbard & Co., Pittsburgh, Pa.
Illinois Malleable Iron Co., Chicago, Ill.
Joliet Wrought Washer Co., Joliet, Ill.
Lanman Co., E. B., East Chicago, Ind.
Lanz, M., Bolt Co., Pittsburgh, Pa.
Michigan Bolt & Nut Co., Detroit, Mich.
Milwaukee—Wrought Washer Mfg. Co., Milwaukee, Wis.
National Malleable & Steel Castings Co., Cleveland, Ohio.
Neely Nut & Bolt Co., Pittsburgh, Pa.
Nicetown Plate Washer Co., Philadelphia, Pa.
North Penn Washer Co., Philadelphia.
Orcutt—The Toledo Washer & Stamping Co., Toledo, O.
Pheoll Mfg. Co., Chicago, Ill.
Right—Gasket Supply Co., Philadelphia, Pa.
Rockford Bolt Co., Rockford, Ill.
Stanley Works, The, New Britain, Conn.
St. Louis Screw Co., St. Louis, Mo.
St. Louis Malleable Casting Co., St. Louis, Mo.
Western Wrought Washer Co., Los Angeles, Cal.
Whitman—Whitman Metal Goods Co., Whitman, Mass.

WASTE, COTTON AND WOOL.

American Mills Co., Atlanta, Ga.
American Supply Co., Chicago, Ill.
Bishop, Robert, Mfg. Co., Boston, Mass.
Blakely, John, & Son, Philadelphia, Pa.
California Waste Co., Inc., Los Angeles, Cal.
Chicago Sanitary Rag Co., Chicago, Ill.
Chicago Waste Co., Chicago, Ill.
Cincinnati Oil Works Co., Cincinnati, O.
Clapp, Harry D. B., & Co., Inc., Philadelphia, Pa.
Cook & Riley, Chicago, Ill.
Corr, Patrick & Sons, Philadelphia, Pa.
Cottonette—The Franklin Paper Stock Co., Franklin, O.
Dallas Waste Mills, Dallas, Tex.
Economy Wiping Materials Co., Inc., New York.
Estes Mills, Fall River, Mass.
Fidelity Brand—The J. Milton Hagy Waste Works, Philadelphia, Pa.
H. & C.—Hill & Cutler Co., Boston, Mass.
Hoffman-Corr Mfg. Co., Philadelphia, Pa.
Lillie, Dexter P., Co., Indian Orchard, Mass.
Lockport Mfg. Co., Depew, N. Y.
Mont, A. W., & Co., Inc., Hartford, Conn.
Nycord—New York Cordage Co., New York, N. Y.
O'Neill Bros., Philadelphia, Pa.
Oxford Waste Co., Philadelphia, Pa.
Perfection—Franklin Mfg. Co., Franklin, Pa.
Remick, Timothy, & Co., Boston, Mass.
Riverside Mills, Augusta, Ga.
Robinson, D., & Sons, Detroit, Mich.
Royal—Royal Mfg. Co., Rahway, N. J.
Rumsey, W., Co., The, Romeo, Mich.
Special Products Co., The, Hopewell, Va.
Springfield Waste Co., Springfield, Mass.
Stratford—Geo. W. Stratford Oakum Co., Jersey City, N. J.
Sweetland Waste Co., South Boston, Mass.
Three W—Wisconsin Waste & Wiper Co., Milwaukee, Wis.
United Waste Mfg. Co., Troy, N. Y.
Wallace Bros. Waste Co., Chicago, Ill.
Webb, Chas. J., Sons Co., Philadelphia, Pa.
Winne, Frank W., & Son, Inc., Philadelphia, Pa.

WASTES, BASIN.

(See also "Supplies & Wastes, Basin.")
Acheson Mfg. Co., Rankin, Braddock P. O., Pa. (single and continuous).
American Brass Novelty Co., Grand Haven, Mich.
American Foundry & Mfg. Co., St. Louis, Mo.
American Pin Co., The, Waterbury, Conn. (Trade names—Universal Bi-Transit, Never Lose.)
American Sanitary Mfg. Co., Abingdon, Ill.
Ball-O—J. B. Wise, Inc., Watertown, N. Y.
Bi-Transit—J. A. Cochrane Brass Mfg. Co., Cleveland, O.
Bridgeport Brass Co., Bridgeport, Conn.
C. & D.—Coyne & Delany Co., Brooklyn, N. Y.
Clean Sweep—Detroit Sanitary Supply Co., Detroit, Mich.
Detroit Sanitary Supply Co., Detroit, Mich.
Edwardsville Brass Co., Edwardsville, Ill.
Elgin Brass Co., New York, N. Y.
Etna, Ideal—Wolff Mfg. Co., Chicago, Ill.
Exeter Brass Works, Exeter, N. H. (Trade names—Acme, Patent Acme.)
Federal-Huber Co. Chicago, Ill. (Trade names—Crown, Duovia, Knickerbocker.)
Fries & Co., Buffalo, N. Y.
Frost Mfg. Co., The, Kenosha, Wis. (Trade names—Femco, Keno.)
Goetz Brass Co., Chicago, Ill.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Haydenville Co., The, Haydenville, Mass.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis. (Trade names—Arlington, Majestic.)
Humphryes Mfg. Co., The, Mansfield, O.
Ideal—Dearborn Brass Co., Cedar Rapids, Ia.
I. X. L.—United States Sanitary Mfg. Co., Pittsburgh, Pa.
I. & M.—The Ireland & Matthews Mfg. Co., Detroit, Mich.
Jenkins Mfg. Co., Inc., Bloomfield, Pa. (Trade names—Rex, Sanos.)
Keeney Mfg. Co., The, Newington, Conn.
Loyal Brass Co., Cleveland, O.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Nassau—J. L. Mott Iron Works, Trenton, N. J.
Patent Acme—Exeter Brass Works, Exeter, N. H.
Peck Bros. & Co., New Haven, Conn. (Trade names—Bi-Transis, Bryant, Success, Wagner.)
Royal Brass Mfg. Co., Cleveland, O.
Secret—The Murdock Mfg. & Supply Co., Cincinnati, Ohio.
S. & K.—Street & Kent Mfg. Co., Chicago, Ill.
Speakman Co., Wilmington, Del.
Stebbins, E., Mfg. Co., East Springfield, Mass. (Trade names—Soderlund, U. B.)
Trenton Brass & Machine Co., The, Trenton, N. J.

Webb, F. W., Mfg. Co., Boston Mass. (Trade names —Columbia, Harlem, Harvard, Princeton, Radcliffe, Webco, Wellesley, Yale.)
Wolff's Ideal—Wolff Mfg. Corp., Chicago, Ill.
Woodward-Wanger Co., Philadelphia, Pa.

WASTES, BATH.

(See also "Supplies & Wastes, Bath.")

American Pin Co., Waterbury, Conn. (Trade names —Adjusto, Wonder.)
American Foundry & Mfg. Co., St. Louis, Mo.
American—The Murdock Mfg. & Supply Co., Cincinnati, O.
American Sanitary Mfg. Co., Abingdon, Ill.
Badger—Milwaukee Flush Valve Co., Milwaukee, Wis.
Brasco—The Columbus Brass Co., Columbus, O.
Bridgeport Brass Co., Bridgeport, Conn.
Clow Continuous—James B. Clow & Sons, Chicago, Ill.
Detroit Sanitary Supply Co., Detroit, Mich.
Edwardsville Brass Co., Edwardsville, Ill.
Fleck Bros Co., Philadelphia, Pa. (Trade names—Eclipse, Neptune, Victor.)
Elgin Brass Co., New York, N. Y.
Federal-Huber Co., Chicago, Ill. (Trade names—Crown, Duovia, Gasco, Knickerbocker, Reliance, Watrous Lifto.)
Fries & Co., Buffalo, N. Y.
Frost Mfg. Co., Kenosha, Wis. (Trade names—Femco, Keno.)
Goetz Brass Co., Chicago, Ill.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Haydenville Co., The, Haydenville, Mass.
Humphryes Mfg. Co., The, Mansfield, O.
I. & M.—The Ireland & Matthews Mfg. Co., Detroit, Mich.
Ideal—The Dearborn Brass Co., Cedar Rapids, Ia.
Johnson, J. D., Co., Philadelphia, Pa. (Trade names—Primrose, Purity, Saxon, Sorno.)
Loyal Brass Co., Cleveland, O.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Mueller Co., Decatur, Ill.
Morency-Van Buren Mfg. Co., Sturgis, Mich.
Mott, J. L., Iron Works, The, Trenton, N. J.
Patent Acme—Exeter Brass Works, Exeter, N. H.
Peck Bros. & Co., New Haven, Conn. (Trade names —Rival, Triumph.)
Rex—Jenkins Mfg. Co., Inc., Bloomfield, N. J.
Richardson, Edro, Brass Co., Baltimore, Md.
Ross & Gade Co., Inc., New York, N. Y.
Rundle Mfg. Co., Milwaukee, Wis.
Salem Brass & Iron Mfg. Co., Bridgeton, N. J.
Savill's, Thos., Sons, Philadelphia, Pa.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Street & Kent Mfg. Co., Chicago, Ill.
Trenton Brass & Machine Co., The, Trenton, N. J.
Universal—Hoffmann & Billings Mfg. Co., Milwaukee, Wis.
Weiskittel, A., & Son Co., Baltimore, Md.
Whitlock Coil Pipe Co., The, Hartford, Conn.
Wise, J. B., Inc., Watertown, N. Y. (Trade names—Ball-O, Garland.)
Wolff's Ideal—Wolff Mfg. Corp., Chicago, Ill.
Woodward-Wanger Co., Philadelphia, Pa.
Yorklyn—Speakman Co., Wilmington, Del.

WASTES, BATH, OVERFLOW AND TRAP CONNECTED.

(See also "Supplies and Wastes.")

Acme Mfg. Co., Bangor, Me.
American—American Foundry & Mfg. Co., St. Louis, Mo.
American Brass Novelty Co., Grand Haven, Mich.
American Pin Co., Waterbury, Conn.
American Sanitary Mfg. Co., Abingdon, Ill.
Ball-O—J. B. Wise, Inc., Watertown, N. Y.
Beaton, A. J., Mfg. Co., New Britain, Conn.
Clean Sweep—Detroit Sanitary Supply Co., Detroit, Mich.
Dearborn Brass Co., Cedar Rapids, Ia.
Elgin Brass Co., New York, N. Y.
Empire Brass Mfg. Co., The, Cleveland, O.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Haydenville Co., The, Haydenville, Mass.
I. & M.—The Ireland & Matthews Mfg. Co., Detroit, Mich.
Keeney Mfg. Co., The, Newington, Conn.
Kretschmer Mfg. Co., Dubuque, Ia.
Little, M. S., Mfg. Co., Hartford, Conn.
McDonald, A. Y., Mfg. Co., Dubuque, Ia.
Murdock Mfg. & Supply Co., The, Cincinnati, O.
Richmond Foundry & Mfg. Co., Richmond, Va.
Schwander Brass Mfg. Co., St. Louis, Mo.
Street & Kent Mfg. Co., Chicago, Ill.
Woodward-Wanger Co., Philadelphia, Pa.

WASTES, LAUNDRY TRAY.

American Foundry & Mfg. Co., St. Louis, Mo.
Andrews, Thomas G., Co., Boston, Mass. "Andrews."
Exeter Brass Works, Exeter, N. H.
Little, M. S., Mfg. Co., Hartford, Conn.
Mott, J. L., Iron Works, The, Trenton, N. J.
Richmond Foundry & Mfg. Co., Richmond, Va.
Street & Kent Mfg. Co., Chicago, Ill.
Woodley Slate Co., Bangor, Pa.

WASTES, LAVATORY, PEDAL.

Prudential—Federal-Huber Co., Chicago, Ill. (pedal and knee action).
Sanitas Mfg. Co., Boston, Mass.
Speakman Co., Wilmington, Del.

WASTES FOR PLUNGE BATHS.

Mott, J. L., Iron Works, Trenton, N. J.

WASTES, POP-UP, BASIN AND BATH.

Ampinco—American Pin Co., Waterbury, Conn.
Brown—Chicago Faucet Co., Chicago, Ill.
Clow, James B., & Sons, Chicago, Ill.
Clean Sweep—Detroit Sanitary Supply Co., Detroit, Mich.
Dearborn—Dearborn Brass Co., Cedar Rapids, Iowa.
Dececo Company, Boston, Mass.
Douglas Co., John, Cincinnati, O.
Exeter Brass Works, Exeter, N. H.
Federal-Huber Co., Chicago, Ill.
Femco—Frost Mfg. Co., Kenosha, Wis.
Goetz Brass Co., Chicago, Ill.
Hoffmann & Billings Mfg. Co., Milwaukee, Wis. (Trade names—Majestic, Triton.)
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
I. & M.—Ireland & Matthews Mfg. Co., Detroit, Mich.
Illinois Valve & Mfg. Co., Chicago, Ill.
Kretschmer Mfg. Co., Dubuque, Ia.
Hudson Brass Works, Brooklyn, N. Y.
Lehnert & Co., New York, N. Y.
Locke Stevens & Co., New York, N. Y.
Milwaukee Flush Valve Co., Milwaukee, Wis.
Morgan Bronze Co., The, Cleveland, O. "Everlock," "Wonder."
Mueller Co., Decatur, Ill.
Murray & Sorensen, New York, N. Y.
Peck Bros. & Co., New Haven, Conn.
Princess—Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Republic Brass Co., Cleveland, O.
Ross & Gade Co., Inc., New York, N. Y.
Royal Brass Mfg. Co., Cleveland, O.
Rundle-Spence Mfg. Co., Milwaukee, Wis.
Securo—Crane Co., Chicago, Ill.
Speakman Co., Wilmington, Del. (Trade names—Acto, Columbia.)
S. & F.—Street & Kent Mfg. Co., Chicago, Ill.
Teck Mfg. Co., Chicago, Ill.
Watrous—Imperial Brass Mfg. Co., Chicago, Ill.
Wiseco—J. B. Wise, Inc., Watertown, N. Y.
Wolff Mfg. Corp., Chicago, Ill.
Yeiser Faucets, Inc., Cleveland, O.

WASTE AND OVERFLOW, SINK.

Keeney Mfg. Co., The, Newington, Conn.
Simplex—J. L. Mott Iron Works, The, Trenton, N. J.
Watrous—Imperial Brass Mfg. Co., Chicago, Ill.
Wiseco—J. B. Wise, Inc., Watertown, N. Y.
Wolff Mfg. Corp., Chicago, Ill.

WATER CLOSETS, FACTORY.

Acme Frost Proof Closet Mfg. Co., Baltimore, Md.
Bowlus—The Bowlus Mfg. Co., Springfield, O.
Haas, Philip, Co., Dayton, O.
Jones Hollow Ware Co., Baltimore, Md.
Kelly—Thos. Kelly & Bros., Chicago, Ill.
Maxco—Sherwood Brass Works, Detroit, Mich.
Rundle-Spence Mfg. Co., Milwaukee, Wis. "Delta," "Geneva," "Itasca."
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Vogel Patent—Joseph A. Vogel Co., Wilmington, Del.
Weiskittel, A., & Son Co., Baltimore, Md.

WATER CLOSETS, FLUSH VALVE.

Alba—Eljer Co., Ford City, Pa.
Bowlus Mfg. Co., The, Springfield, O.
Clow, James B., & Sons, Chicago, Ill.
Crane Company, Chicago, Ill.
Federal-Huber Co., Chicago, Ill. (Trade names—Adonis, Adrian, Adriatic, Ajax, Alamo, Auto, Altruist, Gasco.)
Fleck Bros. Co., Philadelphia, Pa. (Trade names—Neptune Jr., Panama, Pullman, Puritan, Tyrolene, Wayne, Yalu.)
Haas, Philip, Co., Dayton, O.
Haines, Jones & Cadbury Co., Philadelphia, Pa. (Trade names—Hajoca, Regulo.)

Hogan Mfg. Co., The, Hartford, Conn.
Jenkins Mfg. Co., Inc., Bloomfield, N. J. (Trade names—Burlington, Camden, Cumberland, Essex, Glendola, Lanoka, Middlesex, Passaic, Sanos.)
Johnson, J. D., Co., Inc., Philadelphia, Pa. (Trade names—Artisan, Gramatan, Lisbon, Ludlow, Niagara, Ovalip, Perfecto, Regent, Rex, Sandow, Vigilant, Wallclo.)
Kalamazoo Sanitary Mfg. Co., Kalamazoo, Mich.
Mott, J. L., Iron Works, Trenton, N. J. (Trade names—Attila, Akron, Beekman, Compacto, Cyclo, Langham, Titan, West Point.)
Primal—Nason Mfg. Co., New York, N. Y.
Royal Sloan—Sloan Valve Co., Chicago, Ill.
Sanitas Mfg. Co., Boston, Mass. (Trade names—Sanitas, Dover, Easton, Hub, Kineo, Rex, Terminal, Trojan, Washdown, Crown, Imperial, Netidus, Rex-Crescent, Keystone.)
Silento—The Kenney Mfg. Co., New York, N. Y.
Standard Sanitary Mfg. Co., Pittsburgh, Pa. (Trade names—Instanto, Metic, Payne Pattern, Rapido.)
Two Fired—Trenton Potteries Co., Trenton, N. J.
Vogel Patent—Vogel, Joseph A., Co., Wilmington, Del.
Watrous Duojet—The Imperial Brass Mfg. Co., Chicago, Ill.
Weiskittel, A., & Son Co., Baltimore, Md.

WATER CLOSETS, FROST PROOF.

Acme—Acme Frost-Proof Closet Mfg. Co., Baltimore, Md.
American Foundry & Mfg. Co., St. Louis, Mo.
Clow-Madden's Patent—James B. Clow & Sons, Chicago, Ill.
Conran—Conran Anti Freezing Closet Co., New York, N. Y.
Electric Weld—John Wood Mfg. Co., Conshohocken, Pa.
Frost King—Crampton-Farley Brass Co., Kansas City, Mo.
Genesee—Nunn Brass Works, Rochester, N. Y.
Haas—Philip Haas Co., Dayton, O.
IXL Pump & Mfg. Co., The, Philadelphia, Pa.
Jack Frost—A. Weiskittel & Son Co., Baltimore, Md.
Johnson, J. D., Co., Inc., Philadelphia, Pa. Trade names—Rexometer, Saxon, Sorno, No. 1, No. 2.
Jones Hollow Ware Co., Baltimore, Md.
Kelly—Thos. Kelly & Bro., Chicago, Ill.
Mott, J. L., Iron Works, Trenton, N. J. "Anti-Freezing."
Siberia—Richards Mfg. Co., The, Grand Rapids, Mich.
Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Vogel Patent—Joseph A. Vogel Co., Wilmington, Del.
Wolff Mfg. Corp., Chicago, Ill.

WATER CLOSETS HOPPER.

Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Kelly, Thos., & Bros., Inc., Chicago, Ill.
Madoric—Thos. Maddock's Sons Co., Trenton, N. J.
McIver—Wolff Mfg. Corp., Chicago, Ill.
Rundle Mfg. Co., Milwaukee, Wis.
Sanic—The Hydraulic Specialty Co., Philadelphia, Pa.
Simplo—J. L. Mott Iron Works, Trenton, N. J.
Southern Queen—Jones Hollow Ware Co., Baltimore, Md.
Standard Sanitary Mfg. Co., Pittsburgh, Pa. (Trade names—Oval, Philadelphia, Round.)
Vogel Patent—Joseph A. Vogel Co., Wilmington, Del.

WATER CLOSETS, PRESSURE TANK.

Bowlus Jewel—Bowlus Mfg. Co., Springfield, O.
Cyclo—The J. L. Mott Iron Works, Trenton, N. J.
Gymnasia—Federal-Huber Co., Chicago, Ill.
Haas, Philip, Co., Dayton, O.
Hajoca—Haines, Jones & Cadbury Mfg. Co., Philadelphia, Pa.
I. X. L. Pump & Mfg. Co., Philadelphia, Pa.
Juvenis—Crane Co., Chicago, Ill.
Standard Sanitary Mfg. Co., Pittsburgh, Pa. (Trade names—Arnum, Gigantum, Giget, Zurish.)
Standard—Prier Brass Mfg. Co., Kansas City, Mo.
Two Fired—Trenton Potteries Co., Trenton, N. J.
Vogel Patent—Joseph A. Vogel Co., Wilmington, Del.
Watrous Duojet—The Imperial Brass Mfg. Co., Chicago, Ill.

WATER CLOSETS, SEAT ACTION.

Bloom Flusher Co., Tiffin, O.
Bowlus Mfg. Co., The, Springfield, O. (Trade names—Bowlus Jewel, Famous, Royal.)
Clow, James B., & Sons, Chicago, Ill. (Trade names Clow, Madden.)
Columbus Brass Co., Columbus, O. (Trade names—Met-All, Zinc-All.)
Coyne & Delany Co., Brooklyn, N. Y.
Crane Co., Chicago, Ill.
Douglas, John Co., Cincinnati, O.
Ebco—D. A. Ebinger Sanitary Mfg. Co., Columbus, O.
Eljer Co., Ford City, Pa.
Federal-Huber Co., Chicago, Ill. (Trade names—Alpha, Aurora, Oregon, Sedial.)
Genesee—Nunn Brass Works, Rochester, N. Y.
Haas, Philip, Co., Dayton, O.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
Hogan Mfg. Co., The, Hartford, Conn.
I. X. L. Pump & Mfg. Co., Philadelphia, Pa.
Imperial Brass Mfg. Co., The, Chicago, Ill. (Trade names—Duojet, Watrous.)
Jack Frost—A. Weiskittel & Son Co., Baltimore, Md.
Johnson, J. D., Co., Philadelphia, Pa. (Trade names—Rex, Saxon, Sorno.)
Jones Hollow Ware Co., Baltimore, Md.
Kohler Co., Kohler, Wis.
Maddock's, Thos., Sons Co., Trenton, N. J. (Trade names—Madera, Madoric.)
Maxco—Sherwood Brass Works, Detroit, Mich.
Peerless Selling Co., Evansville, Ind.
Royal—Sloan Valve Co., Chicago, Ill.
Rundle-Spence Mfg. Co., Milwaukee, Wis.
Standard Sanitary Mfg. Co., Pittsburgh, Pa. (Trade names—Arno, Arnum, Bastile, Chidlow, Delecto, Giantum, Osborn, Paragon, Reverse, Uthful.)
Standard Tank & Seat Co., Camden, N. J.
Trenton Potteries Co., Trenton, N. J. (Trade names—Tepeco, Two Fired.)
Ventilano—Thos. Kelly & Bro., Chicago, Ill.
Vogel Patent—Joseph A. Vogel Co., Wilmington, Del.
Weiskittel, A., & Son Co., Baltimore, Md.
Wolff Mfg. Corp., Chicago, Ill.

WATER CLOSETS, VENT COLLARS.

Maddock's, Thos., Sons Co., Trenton, N. J.

WATER CLOSETS, VENTILATED.

Bowlus Famous, Bowlus Jewel—The Bowlus Mfg. Co., Springfield, O.
Ebco—D. A. Ebinger Sanitary Mfg. Co., Columbus, O.
Haas, Philip, Co., Dayton, O.

WATER CLOSETS, WALL, SUSPENDED.

Bowlus Famous—The Bowlus Mfg. Co., Springfield, Ohio
Haas, Philip, Co., Dayton, O.
Madwall—Thos. Maddock's Sons Co., Trenton, N. J
Murova—Wolff Mfg. Corp., Chicago, Ill.
Payne—Standard Sanitary Mfg. Co., Pittsburgh, Pa.
Suspendo—J. L. Mott Iron Works, Trenton, N. J.

WATER LIFTS.

Barnes Mfg. Co., Mansfield, O.
Buckeye Pump & Mfg. Co., Columbus, O.
Decatur Pump Co., Decatur, Ill.
Deming Co., The, Salem, O.
Gem—Geo. J. Roberts Co., Dayton, O.
Improved National—National Water Lift Co., Kalamazoo, Mich.
Improved Triumph—The Ohio Pump & Brass Co., Columbus, O.
Latta-Martin Pump Co., Hickory, N. C.
Myers, F. E., & Bro. Co., Ashland, O.
New Duplex—The Goulds Mfg. Co., Seneca Falls, N. Y.
Niagara—Niagara Hydraulic Engine Co., Chester Pa.
Perfect—Erwin & Co., Chicago, Ill.
Vaile-Kimes Co., Dayton, O.

WATERPROOF INSULATION, UNDERGROUND STEAM LINE.

Ric-wil Company, Cleveland, O.

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Clingtite—Ohio Pump & Brass Co., Columbus, O.
Little Giant—The Gaylord Mfg. Co., New York, N. Y
Sherman Mfg. Co., H. B., Battle Creek, Mich.
Schlangen Bros. Co., Chicago, Ill.

WATER TREATMENT FOR BOILERS.

Scaife, Wm. B., & Sons Co., Pittsburgh, Pa.

WATER WHEEL HARNESS.

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Hill Clutch Machine & Foundry Co., The, Cleveland, O.
Wellman-Seaver-Morgan Co., The, Cleveland, O.

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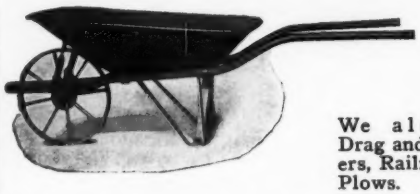
Bristol Company, The, Waterbury, Conn.

WAX, BELT FILLER.

Cantol—E. C. Atkins & Co., Indianapolis, Ind.

WAYS, BALANCING.

(See "Machines, Balancing.")



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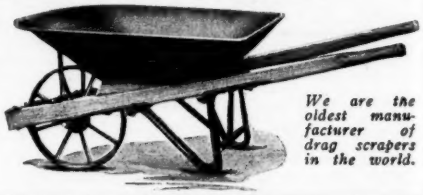

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Gray Cent—The Coe & Brown Co., New Haven, Conn.
Green Line—The Empire Mfg. Co., Lockport, N. Y.
Rubber-ite—McIlroy Belting Co., Griffith, Ind.
Rugg, E. T., & Co., Newark, O.
Russell Mfg. Co., Middletown, Conn.
Springfield Webbing Co., Springfield, Mass.
Sutherland Leather & Felt Co., Detroit, Mich.

WEDGES (FOR AXE, HAMMER AND HATCHET HANDLES).

Leetonia Tool Co., The, Leetonia, O.
Pratt, Wm. E., Mfg. Co., Chicago, Ill.
Sawyer Belt Hook Co., Pawtucket, R. I.
Syracuse—Syracuse Twist Drill Co., Syracuse, N. Y.

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Smith, H. D., & Co., The, Plantsville, Conn.

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A. C. Co.—Lancaster Iron Works, Lancaster, Pa.

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Cad—Standard Shop Equipment Co., Inc., Philadelphia, Pa.
Williams, J. H., & Co., Buffalo, N. Y.

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American District Steam Co., North Tonawanda, N. Y. "Adsco."

WEDGES AND SLEDGES, STEEL.

Horseshoe—Stanley Rule & Level Plant, Atha Dept., New Britain, Conn.
Hubbard & Co., Pittsburgh, Pa.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Klein-Logan Co., The, Pittsburg, Pa.
Lanz, M., Bolt Co., Pittsburgh, Pa.
Leetonia Tool Co., Leetonia, O. (coal).
Quikwerk—The Warren Tool & Forge Co., Warren, O.
Salem Tool Co., The, Salem, O.
St. Louis Malleable Casting Co., St. Louis, Mo.
Tyrone—Oliver Iron & Steel Corp., Pittsburgh, Pa.
United States Chain & Forging Co., Pittsburgh, Pa.
Verona Tool Works, Pittsburgh, Pa.
Vulcan Tool Mfg. Co., The, Quincy, Mass.
Warwood Tool Co., Wheeling, W. Va.

WEIGHERS, WATER.

Armstrong—Armstrong Mfg. Co., Springfield, O.
Tyler—R. W. Sharon Co., Pittsburgh, Pa.
Willcox Eng. Co., Saginaw, Mich. "Willcox."

WELDERS, FLUE, PNEUMATIC.

Buckeye—The Macleod Co., Cincinnati, O.
Draper Improved—The Draper Mfg. Co., Port Huron, Mich.

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Alternarc—Electric Arc Cutting & Welding Co., Newark, N. J.
Burke Electric Co., Erie, Pa.
Federal Machine & Welder Co., Warren, O.
General Electric Co., Schenectady, N. Y. (heavy duty).
Great Western Mfg. Co., Leavenworth, Kans.
Lincoln Electric Co., Cleveland, O.
Sanford—F. C. Sanford Mfg. Co., Bridgeport, Conn
Swift Electric Welder Co., Detroit, Mich.
Taylor Welder Co., The, Warren, O.
Thomson—Thomson Spot Welder Co., Lynn, Mass.
Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.
Willis—Henderson-Willis Welding & Cutting Co., St. Louis, Mo.
Wilson Welder & Metals Co., Inc., Hoboken, N. J. "Plastic-Arc."
Winfield Butt Welder—Winfield Electric Welding Machine Co., Warren, Ohio.
Zeus—Gibb Welding Machines Co., Bay City, Mich.

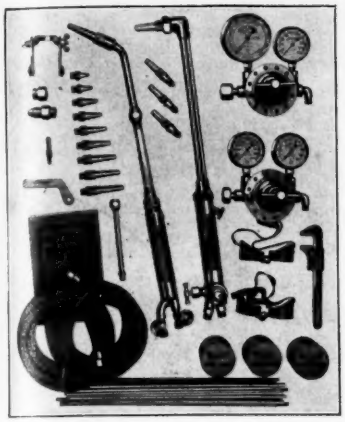
WELDING AND CUTTING APPARATUS, OXYGEN-ACETYLENE, AND EQUIPMENT.

Admiral—Admiral Welding Mach. Co., Kansas City, Mo.
Baird Pneumatic Tool Co., Topeka, Kan.
Best—Best Co., Pittsburgh, Pa.
Bishop & Babcock Co., The, Cleveland, O.
Brauer Acetylene Lighting Co., The, Marshalltown, Iowa.
Buckeye—The Macleod Co., Cincinnati, O.
Burdett Mfg. Co., Chicago, Ill.
Carbic Mfg. Co., Duluth, Minn.
Cox Brass Mfg. Co., Inc., Albany, N. Y.
Dockson, C. H., Co., Detroit, Mich.
Dyer Company, The, Cambridge, Mass.
Federal Brass Works, Chicago, Ill.
Harris Calorific Co., Cleveland, O.
Imperial—Imperial Brass Mfg. Co., Chicago, Ill.
I.O.C.—International Oxygen Co., Newark, N. J.
K. G. Welding & Cutting Co., Inc., New York, N. Y.
MECO—Modern Engineering Co., St. Louis, Mo.
Messer Welding Supply Corp., Brooklyn, N. Y. "Messer."
Metal & Thermit Corp., New York, N. Y.
Milburn, Alexander, Co., Baltimore, Md.
Oxweld, Eveready—Oxweld Acetylene Co., New York, N. Y.
Oxy-Acetylene Equipment Co., Brooklyn, N. Y.
Prest-O-Lite Co., The, Inc., Indianapolis, Ind. "Prest-O-Lite."
Rego—Bastian-Blessing Co., Chicago, Ill.
Russ Manufacturing Co., The, Cleveland, O.
Schemmel Welding & Machine Works, Wapakoneta, Ohio.
Smith Welding Equipment Corp., Minneapolis, Minn.
Thermalene Gas Corp., Kankakee, Ill.
Torchweld—Torchweld Equipment Co., Chicago, Ill.
Turner Brass Works, Sycamore, Ill.
Unoxco—Universal Oxygen Co., Sheboygan, Wis.
Varwig Mfg. Co., Cincinnati, O.
Waterhouse Welding Co., Boston, Mass.
Weld-a-Cast—Cortland Welding Compound Co., Cortland, N. Y.
Weldit Acetylene Co., Detroit, Mich.
Willis—Henderson-Willis Welding & Cutting Co., St. Louis, Mo.

WHEELBARROWS.

American Steel Scraper Co., The, Sidney, O.
Asheboro Wheelbarrow Co., Asheboro, N. C.
Bull Frog—Toledo Wheelbarrow Co., Toledo, O.
Champion—The Bryan Mfg. Co., Bryan, O.
Champion—Western Tool & Mfg. Co., Springfield, O.
Chattanooga Wheelbarrow Co., Chattanooga, Tenn. (Trade names — Chattanooga, Dixie, Dixie Queen, Hamilton, Golden Rod, Lookout, Pan, Panama, Phosphate, Tennessee, Western.)
Cleveland Wheelbarrow & Mfg. Co., Cleveland, O. "Red Star."
Conkey, H. D., & Co., Mendota, Ill. (Conco Steebilt).

IMPERIAL WELDING AND CUTTING OUTFITS—Oxy-Acetylene Process



Imperial Welding and Cutting Equipment and Acetylene Generators are manufactured under the personal supervision of long experienced and practical welding and cutting engineers.

Imperial Equipment is easy to operate; any mechanic who carefully follows our simple instructions can quickly master the art of welding and cutting by the oxy-acetylene process. Imperial engineers assist beginners in every possible way.

No other equipment has a mixing principle like it—scientific, practical, years ahead of the others. No other has a regulator that so accurately and uniformly controls delivery of gas, from lowest to highest pressures. No other can approach the Imperial Torch for great working range with one unit.

All Imperial Welding and Cutting Outfits, except the No. 12, include a strong, light steel carrying case. A smaller steel carrying case for the No. 12 outfit is furnished when desired.

No. 11 IMPERIAL WELDING OUTFIT

For all general welding work, from thin sheet metal to heaviest castings.

Consists of Type X Imperial Welding Torch with 10 Type C copper welding tips, extension, regulators, 4 gauges, hose, connections, goggles, handbook, carrying case, complete supply of welding materials and spark lighter, ready for service.

Each $90.00

No. 14 COMBINATION WELDING AND CUTTING OUTFIT

A splendid equipment for all general work, garages, etc. Combination welding and cutting torch performs both operations.

Consists of Type XC Imperial Welding Torch with Cutting Attachment. Ten welding and 3 cutting tips, regulators, 4 gauges, hose, connections, goggles, handbook, carrying case, complete supply of welding materials and spark lighter, ready for service.

Each $105.00

No. 15 IMPERIAL DUPLEX WELDING AND CUTTING OUTFIT

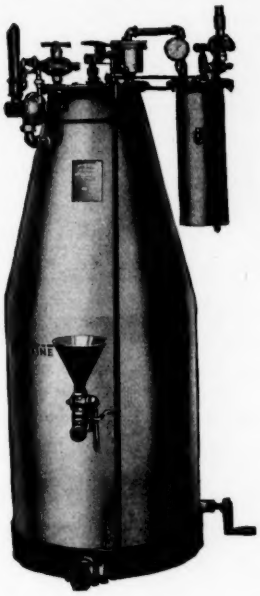
Best all purpose apparatus obtainable at any price. Fully adequate to handle all welding and cutting for which the process is adapted.

Consists of a complete No. 11 Imperial Welding Outfit and also includes a Type R Imperial Cutting Torch with 4 Type R copper cutting tips and an extra pair of goggles and 25-ft. lengths of hose.

Each $145.00

IMPERIAL AUTOMATIC ACETYLENE GENERATOR—Type A

Approved by the Underwriters Laboratories of The National Board of Fire Underwriters



The Imperial Acetylene Generator possesses many marked advantages over other makes, the most important of these being the absence of weights, clock-work and complicated mechanism. In the Imperial Generator the carbide feed is simple, sure and dependable, and is automatically controlled by the gas consumed by the torch—the generating of the gas automatically stops when the torch is extinguished and automatically starts when the torch is relighted, thus automatically maintaining a constant, even gas pressure.

Interlocking safety levers make the Imperial Generator absolutely foolproof, and compel the users to follow the proper sequence of the operations necessary to start or shut off the generator. A dependable safety blow-off makes it impossible to obtain more than 15 lbs. pressure.

It can be used with any make of Welding, Cutting or Lead Burning Apparatus.

Table of Capacities of Imperial Acetylene Generators

Size of Generator	Approximate No. of Torches Used at Same Time			Acetylene Gas Generated Per Hour	Price List
	Light Work	Medium Work	Heavy Work		
15 lbs.	1	1	0	15 cu. ft.	$155.00
25 lbs.	2	1	1	25 cu. ft.	165.00
50 lbs.	4	2	1	50 cu. ft.	225.00
100 lbs.	10	5	2	100 cu. ft.	375.00

Prices and data on 200 and 300 lb. sizes on request.

Complete Catalog and Prices on Request

The Imperial Brass Mfg. Co., 513 So. Racine Ave., Chicago

Consolidated Iron Works, Hoboken, N. J.
Fairbanks Co., The, New York, N. Y.
Fitts, Frank E., Mfg. & Supply Co., Boston, Mass.
Focht Sons, Geo., Hoboken, N. J.
General Wheelbarrow Company, Cleveland, Ohio (formerly Akron Barrow Company).
Howe—Howe Scale Co., Rutland, Vt.
Industrial Supply Co., Keokuk, Iowa.
Jackson Mfg. Co., Harrisburg, Pa.
Kalamazoo Railway Supply Co., Kalamazoo, Mich.
Kessler—Kessler Wheelbarrow Co., Philadelphia, Pa.
Lakewood Engineering Co., Cleveland, O.
Lansing Co., Lansing, Mich.
Marion Machine Foundry & Supply Co., Marion, Ind.
McWhinnie Wheelbarrow Co., Poughkeepsie, N. Y.
National—Phillips, Doup & Co., Inc., Brooklyn, N. Y.
New York Wheelbarrow Co., New York, N. Y.
Obermayer Co., The S., Cincinnati, O.
One Complete Package—Bryan Mfg. Co., Bryan, O.
Orangeville Mfg. Co., Orangeville, Pa.
Sackett, H. B. Screen & Chute Co., Chicago, Ill.
Shod—Bryan Mfg. Co., Bryan, Ohio (tubular).
Syracuse—Syracuse Chilled Plow Co., Inc., Syracuse, N. Y.
U. S.—Sidney Steel Scraper Works, Sidney, O.
Weimer—Weimer Machine Works Co., Lebanon, Pa.
Western Wheelbarrow Mfg. Co., South Fort Smith, Ark.

WHEELS FOR CARRYING BAND SAWS.

Wardwell Mfg. Co., The, Cleveland, O. (Pedestal and bench types.)

WHEELS, BARROW, PRESSED STEEL.

Mullins Body Corp., Stamping Dept. A, Salem, O.

WHEELS, BUFFING AND POLISHING.

Acme—E. Reed Burns & Sons, Inc., Brooklyn, N. Y.
Al, Wilco—Williamsville Buff Mfg. Co., Danielson, Conn.
Armstrong Cork Co., Pittsburgh, Pa.
B. G.—Buffalo Pulley & Caster Co., Inc., Buffalo, N. Y.
Booth Felt Co., The, Brooklyn, N. Y.
Bullneck—Bickford & Francis Belting Co., Buffalo, N. Y.
Chicago Rawhide Mfg. Co., Chicago, Ill.
Chicago—Chicago Wheel & Mfg. Co., Chicago, Ill.
Codman, F. L. & J. C., South Boston, Mass.
Coxsackie Wheel & Mfg. Co., Coxsackie, N. Y.
Eastern Felt Co., Winchester, Mass.—Trade names— Independence, U. S. A., X L, Jewel, Pearl, Spar ish, Mexican.)
Flint, Warren F., Co., Boston, Mass.
New England Buff Co., Boston, Mass.
Ohio Buff & Mfg. Co., The, Cincinnati, O.
Tingue, Brown & Co., New York, N. Y.
Webb Mfg. Co., Newark, N. J.
Wood, J. R., Supply Co., The, Cincinnati, O.

WHEELS, BULL.

Parker, S. E., Chicago, Ill.
Scottdale—Scottdale Machine & Mfg. Co., Scottdale, Pa.
Stephens-Adamson Mfg. Co., Aurora, Ill.

WHEELS, FLY AND ROPE.

Allis-Chalmers Co., Milwaukee, Wis.
Brown, A. & F., Co., The, Elizabethport, N. J.
Caldwell & Son Co., H. W., Chicago, Ill.
Dodge Mfg. Corp., Mishawaka, Ind.
Hanson Clutch & Machinery Co., Tiffin, O.
Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.
Huntsville Foundry & Machine Co., Huntsville, Ala.
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Lane & Bodley Co., The, Cincinnati, Ohio.
Link-Belt Company, Chicago and Philadelphia, Pa.
Medart Company, The, St. Louis, Mo.
Mesta Machine Co., Pittsburgh, Pa.
Naylor Bros., Peekskill, N. Y.
Red Face—Pyott Foundry Co., Chicago, Ill.
Southwark Foundry & Machine Co., Philadelphia, Pa.
Weller Mfg. Co., Chicago, Ill.
Wood, T. B., Sons Company, Chambersburg, Pa.

WHEELS, FRICTION.

Chicago Rawhide Mfg. Co., Chicago, Ill.
Reinhold Belting & Strap Co., Brooklyn, N. Y.

WHEELS, GLASS CUTTING.

Crescent—Crescent Co., Inc., The, Meriden, Conn. (straight and circular).
Goodell-Pratt Co., Greenfield, Mass.
Norton, Alundum, Crystolon—Norton Co., Worcester, Mass.

WHEELS, GRINDING.

Abrasive, Borolon, Electrolon, S. B. Borolon—The Abrasive Co., Bridesburg, Philadelphia, Pa.
Atkins, E. C., & Co., Indianapolis, Ind. (Trade names —Acrolite, Ferrolite.)
Alowalt, Carbowalt, Richardson—Waltham Grinding Wheel Co., Waltham, Mass.
Alundum, Crystolon—Norton Co., Worcester, Mass.
American, Corundum, Carbolite—American Emery Wheel Works, Providence, R. I.
Bay State Emery Wheel Co., Worcester, Mass.
Besly, Chas. H., & Co., Chicago, Ill. "Helmet."
Carbo, Sapphite—Maxf Grinding Wheel Corp., Chester, Mass.
Carborundum, Aloxite—Carborundum Company, The, Niagara Falls, N. Y.
Chicago Wheel & Mfg. Co., Chicago, Ill. "Chicago."
Cincinnati Abrasive Wheel Co., Inc., Covington, Ky. "Alumocut and Carbocut."
Cleveland Stone Co., The, Cleveland, O.
Cleveland Abrasive Wheel Co., The, Cleveland, O.
Commercial Grinding Wheel Co., Inc., Chicago, Ill.
Cortland Grinding Wheels Corp., Chester, Mass. (Trade names—Carbora, Oxaluma.)
Dayton—The A. A. Simonds-Dayton Co., Dayton, O.
Diamond—General Grinding Wheel Corp., Philadelphia, Pa.
Dimo-Grit—Luther Grinder Mfg. Co., Milwaukee, Wis.
Eagle—Eagle Emery & Corundum Wheel Co., Chicago, Ill.
Electric Emery Wheel Co., The, Newark, N. J.
Gardner's Improved—Gardner Machine Co., Beloit Wis.
Goodrich Grinding Wheel Co., Chicago, Ill. (Trade names—Carbo, Improved Corundum.)
Griffiths, Albert, Saw Co., Boston, Mass.
Hampden Grinding Wheel Co., Springfield, Mass.
Hy-Tens, Lo-Tens—Precision Grinding Wheel Co., Philadelphia, Pa.
National Grinding Wheel Co., Inc., Buffalo, N. Y.
Ottoman—H. A. Stiles & Co., Boston, Mass.
Pike Mfg. Co., Pike, N. H.
Pittsburgh Grinding Wheel Co., Rochester, Pa.
Precision Grinding Wheel Co., Inc., Philadelphia, Pa. "Hy-Tens," "Lo-Tens."
Rogers, S. C., & Co., Buffalo, N. Y. (flat and cup).
Scranton Whetstone & Abrasive Wheel Co., Scranton, Pa.
Springfield Mfg. Co., The, Bridgeport, Conn.
Steel Wheels, Inc., Newark, N. J. "Vulcan."
Sterling Grinding Wheel Co., The, Cleveland, O. (Trade names—Sterling, Sterlith, Sterbon.)
Superior Grinding Wheel Co., Waltham, Mass. (Trade names—Carbo-X, Superior X-L-Ite.)
Tanite Co., The, Stroudsburg, Pa.
Vitrified Wheel Co., The, Westfield, Mass. (Trade names—Borofied, Carbofied, Vitrified Borite.)
Vulcanite—New York Belting & Packing Co., New York, N. Y.
White Heat Products Co., Frazer, Pa.
Wolf New Process Abrasive Wheel Co., Inc., Meriden, Conn.

WHEELS, HAND.

Hill Clutch Machine & Foundry Co., The, Cleveland, Ohio.

WHEELS, INDICATOR, REDUCING.

American Schaeffer & Budenberg Corp., Brooklyn, N. Y.
Ashcroft—The Ashcroft Mfg. Co., New York, N. Y.
Faultless—Trill Indicator Co., Corry, Pa.
Jost's, Edmund, Sons, Newark, N. J.
Lippincott—A. C. Lippincott Co. East Orange, N. J.
Star—Star Brass Mfg. Co., Boston, Mass.
Victor—James L. Robertson & Sons, New York, N. Y.
Watts Regulator Co., Lawrence, Mass.

WHEELS, METAL.

Little, J. R., Metal Wheel Co., Quincy, Ill.
Heartley Machine, Variety Iron & Tool Works, **Toledo, Ohio.**
Mullins Body Corp., Stamping Dept. A, Salem O.

WHEELS, PIPE CUTTER.

American Pipe Tool Co., Chicago, Ill.
Armstrong Bros. Tool Co., Chicago, Ill.
Barnes Genuine—Barnes Tool Co., New Haven, Conn.
Collmer Bros., South Bend, Ind. (wheels for Barnes, Saunders, Stanwood, Holland, Trimo and Armstrong cutters).
Crown—Crown Die & Tool Co., Chicago, Ill.
Good Mfg. Co., Inc., New York, N. Y.
Nye Knurled—Nye Tool & Machine Works, Chicago.
Saunders Pat.—Barnes Tool Co., New Haven, Conn.
Sexauer, J. A., Mfg. Co., New York.
Walworth Company, Boston, Mass.

WHEELS, SPROCKET.

Boston Gear Works, Quincy, Mass.
Bullock, C. K. Co., Philadelphia, Pa.
Caldwell, H. W., & Son Co., Chicago, Ill.

The HOOSIER All Iron

GONG WHISTLE

All Sizes in Stock for Quick Shipment.

Best Results Obtained with 100 pounds or more Steam or Air Pressure.

We have been making Hoosier All Iron Gong Whistles for a number of years and have shipped them to every state in the Union. Note that they are made in eight sizes up to 12 inch inclusive. These Gong Whistles are made entirely of iron and the bells are adjustable to or from the steam outlet, so that the user can get the sound wanted by the adjustment of the bells. Quick shipments on all sizes.

PRICE LIST (Not including valves)

Diameter of Gong	Price	Size of Steam Inlet
1 In.	$ 6.00	⅜ In.
2 In.	$ 8.00	½ In.
3 In.	$10.00	¾ In.
4 In.	$12.00	1¼ In.
6 In.	$16.00	1½ In.
8 In.	$20.00	2 In.
10 In.	$30.00	2½ In.
12 In.	$50.00	3 In.

THE SINKER-DAVIS CO.
Indianapolis Indiana

Caldwell, W. E., Co., Louisville, Ky.
Chain Belt Co., Milwaukee, Wis.
Chisholm-Moore Mfg. Co., Cleveland, O.
C. M. C.—Christiana Machine Co., Christiana, Pa.
Constant XX Century Corp., Bloomington, Ill.
Diamond Chain & Mfg. Co., Indianapolis, Ind.
Filer & Stowell Co., Milwaukee, Wis.
Garrison—Garrison Machine Works, Dayton, O.
Grant Gear Works, Boston, Mass.
Great Western Mfg. Co., Leavenworth, Kan.
Howe Chain Co., Muskegon, Mich.
Huntsville Foundry & Machine Co., Huntsville, Ala.
Jeffrey Mfg. Co., Columbus, O. "Jeffrey."
Jones, W. A., Foundry & Machine Co., Chicago, Ill.
Latimer, Robert L., & Co., Philadelphia.
Link-Belt Company, Chicago and Philadelphia.
Medart Company, The, St. Louis, Mo.
Michigan Sprocket Chain Co., Detroit, Mich.
Montgomery Coal Washing & Mfg. Co., Birmingham Ala.
Morse Chain Co., Ithaca, N. Y.
Nordyke & Marmon Co., Indianapolis, Ind.
Philadelphia Gear Works, Inc., Philadelphia, Pa.
Red Face—Pyott Foundry Co., Chicago, Ill.
Robins Conveying Belt Co., New York.
Schultz, A. L., & Son, Chicago, Ill.
Stephens-Adamson Mfg. Co., Aurora, Ill.
Tisco—Taylor-Wharton Iron & Steel Co., High Bridge, N. J.
Union—Union Chain & Mfg. Co., Seville, O.
Webster Mfg. Co., The, Chicago, Ill.
Weller Mfg. Co., Chicago, Ill.
Wolf Co., The, Chambersburg, Pa.

WHEELS, TIRE MEASURING.

G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.

WHEELS AND CASTERS, TRUCK, ETC.

Acme—The Schatz Mfg. Co., Poughkeepsie, N. Y. (ball bearing).
Armstrong Truck Co., North Wales, Pa. "Armstrong Patent."
Bassick Co., The, Bridgeport, Conn. (Trade names—Bassick, Gem, Harvard, Ruboid, Yale.)
B. G.—Buffalo Pulley & Caster Co., Inc., Buffalo, N. Y. (leather tread).
Bond Foundry & Machine Co., Manheim, Pa.
Boss, Martin, Rex, Stengel—Phoenix Caster Co., Indianapolis, Ind.
Chapman—Transmission Ball Bearing Co., Inc., Buffalo, N. Y. (Ball-bearing.)
Clarco—Mullins Body Corp., Stamping Dept. A. Salem, O.
Clark Equipment Co., Buchanan, Mich.
Clark, Geo. P., Co., The, Windsor Locks, Conn. (iron, rubber, fibre).
Conco—H. D. Conkey & Co., Mendota, Ill.
Currie Mfg. Co., Chicago, Ill. "Rol-Ezy."
Divine Cushion—Divine Bros. Co., Utica, N. Y.
Efemco—Foster Merriam & Co., Meriden, Conn.
Electric Wheel Co., Quincy, Ill.
Empire Mfg. Co., Quincy, Ill. "Empire."
Fairbanks Co., The, New York, N. Y.
Fairmont Gas Engine & Railway Motor Co., Fairmont, Minn.
Francis, Chas. E., Co., Rushville, Ind.
French & Hecht, Davenport, Iowa.
Hamilton Caster & Mfg. Co., The, Hamilton, O. (Trade names—Economic, Kwality Kaster, Run Rite, Truckaster.)
Harris & Reed Mfg. Co., Chicago, Ill. (Ball Bearing.)
Heartley Machine Variety Iron & Tool Works, Toledo, O.
Keystone Forging Co., Northumberland, Pa.
Lansing Co., Lansing, Mich.
Lawson—Menasha Wood Split Pulley Co., Menasha, Wis.
Medart Co., The, Saint Louis, Mo.
Met-L-Wood Corp., Chicago, Ill.
Metzgar Company, Inc., Grand Rapids, Mich. (wood)
Morris Patent—Morris Truck & Wheel Co., Inc., Philadelphia, Pa.
Mullins Body Corp., Stamping Dept. A., Salem, O.
Noelting—Faultless Caster Co., Evansville, Ind.
Nokut—Western Wheelbarrow Mfg. Co., So. Fort Smith, Ark.
Payson Anti-Friction—The Payson Mfg. Co., Chicago, Ill.
Peck, Stow & Wilcox Co., Southington, Conn.
Pioneer—Pioneer Caster & Mfg. Co., Elkhart, Ind.
Saginaw Stamping & Tool Co., Saginaw, Mich. "Race-a-Way."
Service—Service Caster & Truck Co., Albion, Mich.
Sizer Forge Co., Buffalo, N. Y.
Standard—Standard Scale & Supply Co., Pittsburgh, Pa.
Stearns & Co., E. C., Syracuse, N. Y.
Swett, A. L., Iron Works, Medina, N. Y.
Weber & Pitcher, Detroit, Mich.
West Steel Casting Co., Cleveland, O.
Wolverine Caster Co., Traverse City, Mich.

WHEELS, VALVE, FIBRE.

Delaware Hard Fibre Co., Wilmington, Del.

WHEELS AND HANDLES, VALVE, METAL.

American Foundry & Mfg. Co., St. Louis, Mo.
Always Cold—The H. A. Matthews Mfg. Co., Seymour, Conn.
Empire—Empire Mfg. Co., Quincy, Ill.
Hasco—H. A. Stiles & Co., Boston, Mass.
Lidseen—Gustave Lidseen, Chicago, Ill.
Lunkenheimer Co., Cincinnati, O.
Peck, Stow & Wilcox Co., Southington, Conn.
Pittsburgh Valve & Fittings Co., Barberton, O.
Powell, Wm. Co., The, Cincinnati, O.
Walworth Company, Boston, Mass.

WHEELS, VALVE OPERATING, SPROCKET.

Babbitt—Babbitt Steam Specialty Co., New Bedford, Mass.

WHEELS, VALVE, PORCELAIN.

Hutter, Karl, Inc., New York, N. Y.

WHEELS, VALVE, WIRE.

McRae & Roberts Co., The, Detroit, Mich.
Prouty—T. R. Almond Mfg. Co., Ashburnham, Mass.

WHEELS, VALVE, WOOD.

Detroit—Detroit Lubricator Co., Detroit, Mich.
Kantsplit—Holton-Abbott Mfg. Co., West Somerville, Mass.
McRae & Roberts Co., The, Detroit, Mich.
Ohio Brass Co., The, Mansfield, O.
Piqua Handle & Mfg. Co., Piqua, O.
Powell, Wm., Co., The, Cincinnati, O.
Rowe, Henry, Mfg. Co., Newaygo, Mich.
Stiles & Co., H. A., Boston, Mass.
Walworth Company, Boston, Mass.

WHEELS, WATER.

Allis-Chalmers Co., Milwaukee, Wis.
Almond—T. R. Almond Mfg. Co., Ashburnham, Mass.
Bartley, Wm., & Sons, Bartley, N. J.
Blue Ball Machine Works, Blue Ball, Pa.
Bradway, C. P., Machine Works, West Stafford, Conn.
Chase Turbine Mfg. Co., Orange, Mass.
Fitz Water Wheel Co., Hanover, Pa. (overshot). "Fitz," "I. X. L.," "Burnham."
Hercules—Holyoke Machine Co., Worcester, Mass.
Hunt—Rodney Hunt Machine Co., Orange, Mass.
Lane Mfg. Co., Montpelier, Vt.
Little Giant—Munson Mill Machinery Co., Inc., Utica, N. Y.
New American—The Dayton-Globe Iron Works Co., Dayton, O.
Samson—The James Leffel & Co., Springfield, O.
Smith—Morgan-Smith Co., York, Pa.
Squier Mfg. Co., Geo. L., Buffalo, N. Y.
Trump—Trump Mfg. Co., Springfield, O.
Wellman-Seaver-Morgan Co., The, Cleveland, O.
Wolf Co., The, Chambersburg, Pa.

WHISTLES, GONG.

Sinker-Davis Co., The, Indianapolis, Ind. (See advertisement on page 383.)

WHISTLES, STEAM AND AIR.

American Safety Lamp & Mine Supply Co., Scranton, Pa.
Ashton Valve Co., Cambridge, Mass.
Belknap Mfg. Co., The, Bridgeport, Conn.
Capitol—Capitol Brass Works, Detroit, Mich.
CC—Crane Co., Chicago, Ill.
Edna Brass Mfg. Co., The, Cincinnati, O.
Farnan Brass Works, Cleveland, O.
Fire Electric—C. M. Lovsted & Co., Seattle, Wash.
Garratt & Co., W. T., San Francisco, Cal.
Haydenville Co., The, Haydenville, Mass.
Jenkins Bros., New York, N. Y.
Lonergan, J. E., Co., Philadelphia, Pa.
Lunkenheimer Co., The, Cincinnati, O.
Mill Electric—C. M. Lovsted & Co., Seattle, Wash.
Nathan Mfg. Co., New York, N. Y.
Ohio Brass Co., The, Mansfield, O.
Old Noisy—Walter A. Zelnicker Supply Co., St. Louis, Mo.
Powell Co., The Wm., Cincinnati, O.
Sinker-Davis Co., The, Indianapolis, Ind. "Hoosier."
Star Brass Mfg. Co., Boston, Mass.
Toots-E—C. M. Lovsted & Co., Seattle, Wash.
Union Water Meter Co., Worcester, Mass.
Walworth Company, Boston, Mass.
Westinghouse Traction Brake Co., Pittsburg, Pa.
Wilcox, Crittenden & Co., Inc., Middletown, Conn.
Williams Valve Co., The D. T., Cincinnati, O.

WICKING, COTTON.

Berkeley Mfg. & Supply Co., Jersey City, N. J. "Berkeley."
Bishop, Robert W., Mfg. Co., Boston, Mass.
Estes Mills, Fall River, Mass.
Lees Mfg. Co., The, Westport, Conn.
Masco—Massasoit Mfg. Co., Fall River, Mass.
Walters—Walters Mfg. Co., Pittsburgh, Pa.

WICKING, FELT.

Advance Felt & Cutting Co., Chicago, Ill.
Booth—The Booth Felt Co., Brooklyn, N. Y.
Brawley, T. R., Brooklyn, N. Y.
Ramshead—Western Felt Works, Chicago, Ill.

WICKING, TORCH

Walters Mfg. Co., Pittsburgh, Pa. (round braided).

WINCHES AND WINDLASSES.

Allis-Chalmers Co., Milwaukee, Wis.
American Engineering Co., Philadelphia, Pa. "A. E. Co."
American Hoist & Derrick Co., St. Paul, Minn. (anchor and ship).
Brownhoist—Brown Hoisting Machinery Co., Cleveland, O.
Canton Foundry & Machine Co., Canton, Ohio.
Channon—James H. Channon Mfg. Co., Chicago, Ill.
Chase Machine Co., The, Cleveland, O.
Chicago Pneumatic Tool Co., New York, N. Y. "Little Giant."
Chisholm-Moore Mfg. Co., Cleveland, O.
Clark Engine & Boiler Co., Kalamazoo, Mich.
Clyde Iron Works, Duluth, Minn.
Detroit Hoist & Machine Co., Detroit, Mich.
Dobbie Fdy. & Machine Co., Niagara Falls, N. Y.
Erie Clutch & Pulley Co., Erie, Pa. "Erie."
Filer & Stowell Co., Milwaukee, Wis.
Flory, S., Mfg. Co., Bangor, Pa.
Huntsville Foundry & Machine Works, Huntsville, Ala.
Indiana Foundry Co., Indiana, Pa.
Klemm, E. R., Chicago, Ill.
Laughlin, Thomas Co., The, Portland, Me.
Lidgerwood Mfg. Co., New York.
Marine Iron Works, Chicago, Ill.
Marine Manufacturing & Supply Co., New York.
Maris Bros., Philadelphia, Pa. (electric).
McKinnon Iron Works Co., Ashtabula, Ohio.
Mead-Morrison Mfg. Co., East Boston, Mass.
Morris—Herbert Morris, Inc., Buffalo, N. Y.
Mundy Hoisting Engine Co., J. S., Newark, N. J.
National Hoisting Engine Co., Harrison, N. J.
O. & S.—Orr & Sembower, Inc., Reading, Pa
Parker, S. E., Chicago, Ill.
Peco—Progress Engineering Co., Pittsburgh, Pa.
Round & Son, D., Cleveland, O.
Sasgen Derrick Co., Chicago, Ill.
Schultz, A. L., & Son, Chicago, Ill.
Shepard Electric Crane & Hoist Co., Montour Falls, N. Y.
S-A—Stephens-Adamson Mfg. Co., Aurora, Ill.
Street Brothers Machine Works, Chattanooga, Tenn.
Superior Iron Works Co., Superior, Wis.
Torry Roller Bushing Works, Bath, Me. (gypsy)
Weller Mfg. Co., Chicago, Ill.
Wilcox, Crittenden & Co., Inc., Middletown, Conn.
Yale & Towne Mfg. Co., The, New York, N. Y. "Safety."

WIPERS, MACHINE.

(See also "Cloths, Wiping, Machine.")

Consumers Waste & Wiper Co., Chicago, Ill.
Cook & Riley, Chicago, Ill.
Ferer, Aaron, & Sons, St. Louis, Mo.
Louisville Sanitary Wipers Co., Louisville, Ky. "Blue Grass."
New Orleans Waste Mills, New Orleans, La.

WIRE CLOTH.

Buffalo—Buffalo Wire Works Co., Buffalo, N. Y.
Eastwood Wire Mfg. Co., Belleville, N. J. (brass and copper).
Howard & Morse, Inc., Brooklyn, N. Y.
Merchant & Evans Co., Philadelphia, Pa.
Michigan Wire Cloth Co., Detroit, Mich.
Newark Wire Cloth Co., Newark, N. J.
Star—U. T. Hungerford Brass & Copper Co., New York. (brass).
Tyler, W. S. Co., The, Cleveland, O.
Wickwire Bros., Cortland, N. Y. (Trade names—Cortland, Gray Wick, Premier.)
Wickwire-Spencer Steel Co., Inc., New York, N. Y.

WIRE, BRASS, COPPER, NICKEL SILVER, AND PHOSPHOR BRONZE.

Anaconda—The American Brass Co., Waterbury, Conn.
American Steel & Wire Co., Chicago, Ill.
American Wire & Cable Co., New York, N. Y.
Bridgeport Brass Co., Bridgeport, Conn.
Bristol Brass Corp., Bristol, Conn.
Cambria Steel Co., Johnstown, Pa.
Chase Metal Works, Waterbury, Conn.
Clendenin Bros., Inc., Baltimore, Md.
Detroit Copper & Brass Rolling Mills, Detroit, Mich.
Gilbert, A., & Sons Brass Foundry Co., St. Louis, Mo.
Hungerford, U. T., Brass & Copper Co., New York, N. Y. "Star."
Interstate Iron & Steel Co., Chicago, Ill.
Merchant & Evans Co., Philadelphia, Pa.
Michigan Wire Cloth Co., Detroit, Mich.
National Conduit & Cable Co., Inc., Hastings-on-Hudson, N. Y.
Newark Wire Cloth Co., Newark, N. J.
Ohio Brass & Copper Co., The, Cincinnati, O.
Omega—Riverside Metal Co., Riverside, N. J.
Phosphor Bronze Smelting Co., Philadelphia, Pa.
Plume & Atwood Mfg. Co., Waterbury, Conn.
Riverside Metal Co., Riverside, N. J.
Roebling—John A. Roebling's Sons Co., Trenton, N. J.
Scovill Mfg. Co., Waterbury, Conn.
Seymour Mfg. Co., The, Seymour, Conn.

WIRE, LEAD.

Bunker Hill Brand—Northwest Lead Co., Seattle, Wash.
Lissberger, Marks, & Son, Inc., Long Island City, N. Y.
National Lead Co., New York, N. Y.
Union Smelting & Refining Co., Inc., Newark, N. J.
United Lead Co., New York, N. Y.

WIRE, SOLDER.

Chicago Solder Co., Chicago, Ill.

WIRE, STEEL.

American Steel & Wire Co., Chicago, Ill.
American Steel Co., Ellwood City, Pa.

Cambria Steel Co., Johnstown, Pa.
Fischer & Hayes Rope & Steel Co., Chicago, Ill.
Gulf States Steel Co., Birmingham, Ala.
Hazard Mfg. Co., Wilkes Barre, Pa.
Igoe Bros., Newark, N J.
Interstate Iron & Steel Co., Chicago, Ill.
Jones & Laughlin Steel Co., Pittsburgh, Pa.
Keystone Steel & Wire Co., Peoria, Ill.
Michigan Wire Cloth Co., Detroit, Mich.
Northwestern Barb Wire Co., Inc., Sterling, Ill.
Peerless—Waterbury Co., New York, N. Y.
Pittsburgh Tool Steel Wire Co., Monaca, Pa. (Tool.)
Pittsburg Perfect—Pittsburgh Steel Co., Pittsburgh, Pa.
Roebling—John A. Roebling's Sons Co., Trenton, N. J.
Seneca Wire & Mfg. Co., Fostoria, O.
Townsend Company, New Brighton, Pa.
Tyler, The W. S., Co., Cleveland, O.
Wheeling Steel Products Co., Wheeling, W. Va.
Wickwire-Spencer Steel Co., Inc., New York, N. Y.
Youngstown Sheet & Tube Co., Youngstown, O.

WIRE, THREADED.

The Blake & Johnson Co., Waterbury, Conn.
Columbus Brass Co., Columbus, O.
Pheoll Mfg. Co., Chicago, Ill.

WIRE, WELDING.

Admiral—Admiral Welding Machine Co., Kansas City, Mo.
American Compound Co., Boston, Mass. (cast iron, "Mapco" Norway iron, "Mapco" steel, Tobin bronze, aluminum, electric).
Atlas Foundry Co., Irvington, N. J.
Eveready—Oxweld Acetylene Co., New York, N. Y.
Ever-Weld—Everhot Mfg. Co., Maywood, Ill.
Eagle Smelting & Refining Works, New York, N. Y.
Federal Tool & Alloy Steel Corp., Brooklyn, N. Y.
Giberson, E. D., & Co., Inc., New York, N. Y.
Igoe Bros., Newark, N. J.
Imperial Brass Mfg. Co., Chicago, Ill.
Macleod Co., Cincinnati, O.
Meco—Modern Engineering Co., St. Louis, Mo.

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Page—Lincoln Steel Co., Chicago, Ill.
Parsons—Cramp, Wm., & Sons Ship & Engine Building Co., The, Philadelphia, Pa.
Red Tip—Mueller Metals Co., Port Huron, Mich.
Phillips-Laffitte Co., The, Philadelphia, Pa.
Pittsburgh Tool Steel Wire Co., Monaca, Pa.
Swedox—Central Steel & Wire Co., Chicago, Ill.
Taunton-New Bedford Copper Co., Taunton, Mass.
Weldcraft Equipment Co., Pittsburgh, Pa.
Weldit—Weldit Acetylene Co., Detroit, Mich.
Wilson, W. S., Corp., New York.
Wilson Welder & Metals Co., Inc., Hoboken, N. J. "Color-Tipt."

WOODWORKERS, UNIVERSAL, VARIETY.

(See also "Machinery, Woodworking," and "Tables, Saw.")

American Saw Mill Machinery Co., Hackettstown, N. J.
Beach—Beach Mfg Co., Montrose, Pa.
Boice-Crane—W. B. & J. E. Boice, Toledo, O.
Buffalo Forge Co., Buffalo, N. Y.
Crescent—Crescent Machine Co., Leetonia, O.
Detroit Nut Co., Detroit, Mich. (portable.)
De Walt—De Walt Products Co., Leola, Pa.
Do-All Appliance Co., Chicago, Ill. "Do-All."
Eveready—The Leach Co., Oshkosh, Wis.
Famous—The Sidney Machine Tool Co., Sidney, O.
Hooker Mfg. Corp., St. Johnsbury, Vt.
Hutchinson Mfg. Co., Inc., Norristown, Pa.
Jaeger Portable Power Corp., Detroit, Mich. "Jaeger Auto Powered."
Knourek Millworker—Woodworkers Tool Works, Chicago, Ill.
Kornau Machine Co., The, Cincinnati, O.
Master Woodworker Mfg. Co., The, Detroit, Mich. "The Master."
Standard Machine Tool & Supply Co., Kansas City, Mo.
Union—Gallmeyer & Livingston Co., Grand Rapids, Mich. (Portable.)
Waymoth, A. D., & Co., Fitchburg, Mass.

WOOL, LEAD.

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Robertson Lead Co., James, Baltimore, Md.
United Lead Co., New York, N. Y.

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Barcalo Mfg. Co., Buffalo, N. Y.
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Bernz, Otto, Co., Newark, N. J.
Billings Improved, B. & S.—The Billings & Spencer Co., Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Buffum Tool Co., Louisiana, Mo.
Cheney Hammer Div. of the Prentiss Vise Co., Little Falls, N. Y.
Coes Wrench Co., Worcester, Mass. "Coes," "Key Model."
Collins Company, The, Collinsville, Conn.
Corry Agricultural—Corry Wrench Co., Corry, Pa.
Crescent—Crescent Tool Co., Jamestown, N. Y.
Diamond Calk Horse Shoe Co., Duluth, Minn.
Eagle Claw—Damascus Steel Products Co., Rockford, Ill.
Elgin—Southern Skein & Foundry Co., Chattanooga, Tenn.
Erie Tool Works, The, Erie, Pa.
Goodell-Pratt Co., Greenfield, Mass.
Gordon—Automatic Wrench Corp. of America, West New York, N. J.
Grip-n-Stick—Grip-n-Stick Co., Dover, O.
Hande Wrench Co., New Bedford, Mass.
Helwig—Helwig Mfg. Co., St. Paul, Minn.
Herbrand Co., The, Fremont, O.
Hjorth & Co., Wm., Jamestown, N. Y.
Husky Wrench Co., Milwaukee, Wis.
Keystone—Keystone Mfg. Co., Buffalo, N. Y.
K. & B.—Kilborn & Bishop Co., New Haven, Conn.
Lamson & Sessions Co., Cleveland, O.
Larco—Larco Wrench & Mfg. Corp., Chicago, Ill.
McKaig-Hatch, Inc., Buffalo, N. Y.
Meadville Wrench Co., Meadville, Pa.
Mossberg Pressed Steel Corp., Attleboro, Mass. (Trade names—Diamond, "K," Sterling.
Oliver-Barth Jack Co., Milwaukee, Wis. "Oliver."
Perfect Handle—The H. D. Smith & Co., Plantsville, Conn.
Pexto—Peck, Stow & Wilcox Co., Southington, Conn.
Polly—Gellman Wrench Corp., Rock Island, Ill.
Rapid Transit—Athol Machine & Fdy. Co., Athol, Mass.
Red and Ready—Albany Hardware Specialty Mfg. Co., Albany, Wis.
Robinson, M. W., Co., New York, N. Y. "Carll."
Scholler—Scholler Mfg. Co., Inc., Buffalo, N. Y.
Staff—Staff Brothers Co., New York.
Speednut Wrench Corp., Chicago, Ill.
Superior—Wm. E. Pratt Mfg. Co., Chicago, Ill.
Threadwell—Threadwell Tool Co., Greenfield, Mass.
Trimo—Trimont Mfg. Co., Roxbury, Mass.
Union Hardware Co., Torrington, Conn. "Gem."
Vichek Tool Co., The, Cleveland, O.
Wakefield, Wizard—Clarence E. Wakefield, Worcester, Mass.
Walworth Company, Boston, Mass.
Whitaker—Whitaker Mfg. Co., Chicago, Ill.
Williams, J. H., & Co., Brooklyn, N. Y.
Wizard—Richards-Wilcox Mfg. Co., Aurora, Ill.
Wright—Chicago Mfg. & Distributing Co., Chicago, Ill.
Yemco—Smith & Hemenway Co., Irvington, N. J.

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Bemis & Call—B & C—Bemis & Call Co., Springfield, Mass.
B. & S.—The Billings & Spencer Co., Hartford, Conn.
Buffum Tool Co., Louisiana, Mo.
Bullock Mfg. Associates, Springfield, Mass.
Erie Tool Works, The, Erie, Pa.
Herbrand Co., The, Fremont, O.
Hercules—Bonney Forge & Tool Works, Allentown, Pa.
Keystone Mfg. Co., The, Buffalo, N. Y. "Westcott."
National Malleable Casting Co., Cleveland, O.
Oswego Tool Co., The, Oswego, N. Y.
Perfect Handle—The H. D. Smith & Co., Plantsville, Conn.
M. W. Robinson Co., New York. "Robinson Adj. S."
Williams, J. H., & Co., Buffalo, N. Y.

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Crocodile, Vixen—Bonney Forge & Tool Works, Allentown, Pa.
Cronk & Carrier Mfg. Co., Montour Falls, N. Y.
Kilborn & Bishop Co., The, New Haven, Conn. "Saxon," "Terrier."
Mossberg—Mossberg Pressed Steel Corp., Attleboro, Mass.
Southern Skein & Foundry Co., Chattanooga, Tenn. "Elgin."
Southington Mfg. Co., The, Southington, Conn. "Sure Grip."
Vlchek Tool Co., The, Cleveland, O.
Williams, J. H., & Co., Buffalo, N. Y.

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Allen Friction, Allen Universal—Allen Wrench & Tool Co., Providence, R. I.
American Nut & Bolt Fastener Co., Pittsburgh, Pa.
Armstrong—Armstrong Bros. Tool Co., Chicago, Ill.
B. & C.—Bemis & Call Co., Springfield, Mass.
Bonney Forge & Tool Works, Allentown, Pa.
B. & S.—The Billings & Spencer Co., Hartford, Conn.
C. M. B. Wrench Co., Garwood, N. J.
Crescent—Crescent Tool Co., Jamestown, N. Y.
Erie Tool Works, The, Erie, Pa.
Fawsco—Ideal Clamp Mfg. Co., Brooklyn, N. Y.
Goodell-Pratt Co., Greenfield, Mass.
Harris & Reed Mfg. Co., Chicago, Ill.
Herbrand Co., The, Fremont, O.
Hinsdale—Hinsdale Mfg. Co., Chicago, Ill.
Husky Wrench Co., Milwaukee, Wis.
Improved Gauge Mfg. Co., Syracuse, N. Y.
Milwaukee True Fit Forge Co., So. Milwaukee, Wis.
Mossberg Pressed Steel Corp., Attleboro, Mass.
Ray (socket)—Packer Auto Specialty Co., Chicago, Ill.
Red Devil—Smith & Hemenway Co., Irvington, N. J.
Slot Lock—L. & L. Mfg. Co., Newark, N. J.
Starrett, The L. S., Co., Athol, Mass.
Vlchek Tool Co., The, Cleveland, O. (sets).
Wakefield, Clarence E., Worcester, Mass. "Wakefield," "Wizard."
Walden-Worcester, Inc., Worcester, Mass.
Walworth Stillson—Walworth Company, Boston, Mass.
Whitaker Mfg. Co., The, Chicago, Ill. "Whitaker."
Williams, J. H., & Co., Buffalo, N. Y.
Wright—Chicago Mfg. & Distributing Co., Chicago, Ill.

WRENCHES, BASIN.

Andree—Otto Bernz Co., Inc., Newark, N. J.
Buzzell—Firm of Wm. Johnson, Newark, N. J.
Falcon—J. H. Williams & Co., Brooklyn, N. Y.
Starbuck, R. M., & Sons, Hartford, Conn.
Trimo—Trimont Mfg. Co., Roxbury, Mass.
Webco—F. W. Webb Mfg. Co., Boston, Mass.

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Barcalo Mfg. Co., Buffalo, N. Y. "Barcalo."
The Billings & Spencer Co., Hartford, Conn. "Billings Improved."
Herbrand Co., The, Fremont, O.
Mossberg Pressed Steel Corp., Attleboro, Mass. (Trade names "A," Alderman, Diamond, Junior, "K," Sterling, "X".)
Vlchek Tool Co., The, Cleveland, O. (sets).
Wakefield, Wizard—Clarence E. Wakefield, Worcester, Mass.
Whitaker—The Whitaker Mfg. Co., Chicago, Ill.

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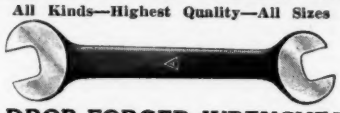
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Williams, J. H., & Co., Buffalo, N. Y.

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Sackett, H. B., Screen & Chute Co., Chicago, Ill.
Williams, J. H., & Co., Buffalo, N. Y.

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Appleton Car Mover Co., Appleton, Wis.
Dayton Car Wrench Co., Dayton, Ohio.
Dayton—Stephens-Adamson Mfg. Co., Aurora, Ill.
I X L—G. M. Gealy, Grove City, Pa.
Sackett, H. B., Screen & Chute Co., Chicago, Ill.
Swaco—The Safety Wrench & Appliance Co., Springfield, Mass.

WRENCHES, CHROME MOLYBDENUM.

Williams, J. H., & Co., Buffalo, N. Y. "Superrench."

WRENCHES, CHROME VANADIUM.

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Armstrong Bros. Tool Co., Chicago, Ill. "Armstrong-Vanadium."

WRENCHES, CHUCK.

Barker—Thomas Elevator Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Horton—E. Horton & Son Co., Windsor Locks, Conn.
Williams, J. H., & Co., Buffalo, N. Y.

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B. & C.—Bemis & Call Co., Springfield, Mass.
Bonney Forge & Tool Works, Allentown, Pa.
Eclipse—Prentiss Vise Co., New York, N. Y.
Erie Tool Works, The, Erie, Pa.
K. & B.—The Kilborn & Bishop Co., New Haven, Conn.
Kant Slip—Allan-Diffenbaugh Wrench & Tool Co., Baraboo, Wis.
Lightning—Crescent Tool Co., Jamestown, N. Y.
Luther Grinder Mfg. Co., Milwaukee, Wis.
Union Hardware Co., Torrington, Conn.
Universal Equalizer Co., The, Cincinnati, O.
Williams, J. H., & Co., Buffalo, N. Y.

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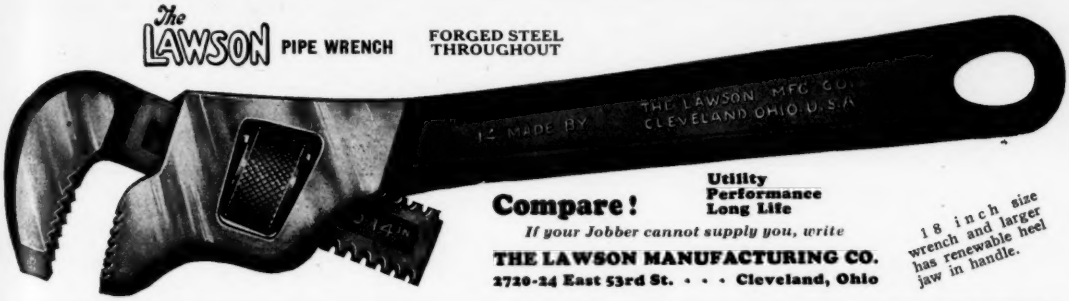

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Armstrong—Armstrong Bros. Tool Co., Chicago, Ill.
Besly—Chas. H. Besly Co., Chicago, Ill.
Billings & Spencer Co., The, Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa. "C. V-Chrome Vanadium."
Bridge Tool Co., St. Louis, Mo.
Buffum Tool Co., Louisiana, Mo.
Coes Wrench Co., Worcester, Mass. "Coes."
Cornwell—The Cornwell Quality Tools Co., Cuyahoga Falls, O.
Dasco—Damascus Steel Products Co., Rockford, Ill.
Diamond Calk Horseshoe Co., Duluth, Minn.
Fairbanks—Fairbanks Co., The, New York, N. Y.
Hays Mfg. Co., Erie, Pa.
Herbrand Co., The, Fremont, O.
Hinsdale Mfg. Co., Chicago, Ill. "Hinsdale."
K. & B.—The Kilborn & Bishop Co., New Haven, Conn.
Lamson Rapid—The Lamson & Sessions Co., Cleveland, O.
Mechanics Tool Co., Rockford, Ill.
Milwaukee True Fit Forge Co., So. Milwaukee, Wis.
Moore Drop Forging Co., Springfield, Mass.
Mossberg Pressed Steel Corp., Attleboro, Mass.
Peck, Stow & Wilcox Co., The, Southington, Conn.
Perfect Handle—H. D. Smith & Co., Plantsville, Conn
Red Devil—Smith & Hemenway Co., Irvington, N. J.
Reed—Reed Mfg. Co., Erie, Pa.
Saxon—Kilborn & Bishop Co., New Haven, Conn.
Vichek Tool Co., The, Cleveland, O.
Wakefield, Clarence E., Worcester, Mass. "Wakefield."
Whitaker—Whitaker Mfg. Co., Chicago, Ill
Williams, J. H., & Co., Buffalo, N. Y. "Falcon," "Superrench," "Vulcan."
Wizard—Clarence E. Wakefield, Worcester, Mass.

WRENCHES, PICK.

Leetonia Tool Co., Leetonia, Ohio.

WRENCHES, PIPE.

Alligator—John A. Roebling's Sons Co., Trenton, N. J
Armstrong Mfg. Co., Bridgeport, Conn.
B. & S.—Billings & Spencer Co., Hartford, Conn.
Belden—The Belden Machine Co., New Haven, Conn.
Champion De Arment Tool Co., Meadville, Pa.
Craft Self-Adjusting—Pittsburgh Malleable Iron Co. (Wrench Dept.), New York, N. Y.
Darling Valve & Mfg. Co., The, Ltd., Williamsport, Pa.
Dunn—Dunn Mfg. Co., Oxnard, Cal.
Erie Tool Works, The, Erie, Pa.
Fairbanks—Fairbanks Co, The, New York, N. Y.
Genuine Stillson—Walworth Company, Boston, Mass.
Greenfield Tap & Die Corp., Greenfield, Mass. (Trade names—G. T. D., Little Giant.)
Hande Wrench Co., New Bedford, Mass.
Hayden—The Belden Machine Co., New Haven, Conn
Hilts-Atlas—Appleton Car Mover Co., Appleton, Wis.
Hoe Corporation, Poughkeepsie, N. Y.
Ideal—Brunswick-Kroeschell Co., Chicago, Ill.
K. & B.—The Kilborn & Bishop Co., New Haven, Conn.
Kant Slip—Allan-Diffenbaugh Wrench & Tool Co., Baraboo, Wis.
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Lawson Mfg. Co., The, Cleveland, O. "Lawson."
Lutz—Lutz Co., Inc., Philadelphia, Pa.
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Oil Well Supply Co., Pittsburgh, Pa.
Oswego Standard. Oswego Stillson Pattern—The Oswego Tool Co., Oswego, N. Y.
Parmelee—Walworth Company, Boston, Mass.
Perfect Handle—The H. D. Smith & Co., Plantsville, Conn.
Pexto—Peck, Stow & Wilcox Co., Southington, Conn.
Queen City—Bergman Tool Mfg. Co., Buffalo, N. Y.
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Ridge Tool Co., The, Elyria, O. "Ridgid."
Shark—Richards-Wilcox Mfg. Co., Aurora, Ill.
Simmons Hardware Co., St. Louis, Mo. "Keen Kutter."
Spartan—Drop Forging Co. of New York, Jersey City, N. J.
Stephenson, T. E., & Sons, Harrisburg, Pa. "No-Mar."
Stillson—Armstrong Bros. Tool Co., Chicago, Ill.
Stillson—Bonney Forge & Tool Works, Allentown, Pa.
Stillson Genuine—Walworth Company, Boston, Mass.
Stillson Pattern—J. P. Danielson Co., Inc., Jamestown, N. Y.
Stillson Pattern—Henry & Allen, Auburn, N. Y.
Stillson Pattern—Moore Drop Forging Co., Springfield, Mass.
Stillson Pattern—Erie Tool Works, Erie, Pa.
Stillson Pattern—The Tobrin Tool Co., Plantsville, Conn.
Trimo—Trimont Mfg. Co., Roxbury, Mass.
V. & B.—Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Williams, J. H., & Co., Buffalo, N. Y. (Trade names—Falcon, Vulcan, Improved Vulcan.)
Warnock—Warnock Mfg. Co., Worcester, Mass.
Whitaker—Whitaker Mfg. Co., Chicago, Ill.

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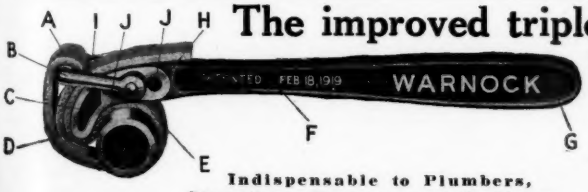

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Robbins—Robbins, Gamwell & Co., Pittsfield, Mass.
Spartan—Drop Forging Co. of New York, Jersey City.
Trimo—Trimont Mfg. Co., Roxbury, Mass.
Vulcan, Falcon—J. H. Williams & Co., Buffalo, N. Y.
Walworth Company, Boston, Mass. (Trade names—Bostong, Parmelee, Walworth, Genuine Walworth, Walworth Bostong.)

WRENCHES, PIPE, STRAP.

(See also "Wrenches, Brass and Nickel Pipe.")

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Warnock Mfg. Co., Worcester, Mass.

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Herbrand Co., The, Fremont, O.
Horseshoe—The Stanley Rule and Level Plant, Atha Dept., New Britain, Conn.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Jeffrey—Jeffrey Mfg. Co., Columbus, O.
Klein-Logan Co., Pittsburg, Pa.
Quikwerk—Warren Tool & Forge Co., The, Warren, Ohio.
Verona Tool Works, Pittsburgh, Pa.
W. & B. Railroad Special—J. H. Williams & Co., Buffalo, N. Y.

WRENCHES, RATCHET.

Allen-Universal—Allen Wrench & Tool Co., Providence, R. I.
Alert Tool Co., Philadelphia, Pa.
Coleman—Pittsburgh Malleable Iron Co. (Wrench Dept.), New York, N. Y.
Eifel-Flash Plierench—The Flash Sales Corp., Chicago, Ill.
Greene, Tweed & Co., New York, N. Y. "Favorite."
Husky Wrench Co., Milwaukee, Wis.
Ideal—Gustave Wiedeke & Co., Dayton, O.
Improved Gauge Mfg. Co., Syracuse, N. Y.
IXL—G. M. Gealy, Grove City, Pa. (car door.)
Key—Key Boiler Equipment Co., East St. Louis, Ill.
Keystone—The Keystone Mfg. Co., Buffalo, N. Y.
Little Giant—Greenfield Tap & Die Corp., Greenfield, Mass.
Lovejoy Tool Works, Chicago, Ill.
Lowell Wrench Co., Worcester, Mass.
Lord—The C. H. Yonts Co., Meadville, Pa.
Lutz Company, Inc., Philadelphia, Pa.
Parmelee—Walworth Company, Boston, Mass.
Silver King—C-M-B Wrench Co., Garwood, N. J.
Speednut—Speednut Wrench Corp., Chicago, Ill.
Starrett, L. S., Co., Athol, Mass.
V. & B.—Vaughan & Bushnell Mfg. Co., Chicago, Ill.
Wizard—Richards-Wilcox Mfg. Co., Aurora, Ill.
Yankee—North Bros. Mfg. Co., Philadelphia, Pa.

WRENCHES, SAW.

Cleveland Machinery Co., Cleveland, Tenn.

WRENCHES, SET SCREW.

Armstrong Bros. Tool Co., Chicago, Ill.

WRENCHES, SOCKET.

Allen Eureka—Allen Friction, Allen Universal—Allen Wrench & Tool Co., Providence, R. I. "Allen Eureka," "Allen Friction," "Allen Universal."
American Swiss File & Tool Co., Elizabeth, N. J.
Armstrong—Armstrong Bros. Tool Co., Chicago, Ill.
Auto Queen—C-M-B Wrench Co., Garwood, N. J.
Billings & Spencer Co., The, Hartford, Conn.
Black & Decker Mfg. Co., The, Towson, Md. (electric).
Bonney Forge & Tool Works, Allentown, Pa. "C. V." (T, offset and brace.)
Braunsdorf-Mueller Co., Elizabeth, N. J.
Chicago Mfg. & Distributing Co., Chicago, Ill. "Wright."
Cincinnati Tool Co., The, Cincinnati, Ohio. "Hargrave."
Goodell-Pratt Co., Greenfield, Mass.
Herbrand Co., The, Fremont, O.
Hexall—R. F. Sedgley, Inc., Philadelphia, Pa.
Hinsdale Mfg. Co., Chicago, Ill. "Hinsdale."
Husky Wrench Co., Milwaukee, Wis.
Improved Gauge Mfg. Co., Syracuse, N. Y.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Keystone—The Keystone Mfg. Co., Buffalo, N. Y.
Lowell Wrench Co., Worcester, Mass.
Lutz—Lutz Company, Inc., Philadelphia, Pa.
Miller Tool & Mfg. Co., Detroit, Mich.
Mossberg Pressed Steel Corp., Attleboro, Mass. (Trade names—Auto Cle, Ever-Wear, Four Way.)
None Better—The New Britain Machine Co., New Britain, Conn.
Palmeter Tool Co., Jamestown, N. Y.
Plomb Tool Co., St. Louis, Mo.
Ray—Packer Auto Specialty Co., Chicago, Ill.
Roosevelt Adjusta—Roosevelt Mfg. Co., Chicago, Ill.
Simplex—R. C. Agner, Burlington, Wis.
Snap-on—Snap-On Wrench Co., Milwaukee, Wis.
Stevens Walden-Worcester Co., Worcester, Mass. "Spintite," "Walden-Worcester."
United States Electrical Tool Co., The, Cincinnati, O. (electric).
Watts Bros. Tool Works, Wilmerding, Pa.
Williams, J. H., & Co., Buffalo, N. Y.
Worcester Pressed Steel Co., Worcester, Mass.
York—York Wrench Mfg. Co., Chicago, Ill.

WRENCHES, SOCKET, SET SCREW.

Allen Mfg. Co., The, Hartford, Conn.
Chicago Screw Co., The, Chicago, Ill.

WRENCHES, SPANNER.

B. & S.—The Billings & Spencer Co., Hartford, Conn
Edna Brass Mfg. Co., The, Cincinnati, O.
Herbrand Co., The, Fremont, O.
Price-Pfister Brass Mfg. Co., Los Angeles, Cal.
Lunkenheimer Co., Cincinnati, O.
Williams, J. H., & Co., Buffalo, N. Y.
Worcester Pressed Steel Co., Worcester, Mass.

WRENCHES, SPARK PLUG.

C.M.B.—C. M. B. Wrench Co., Garwood, N. J.
Herbrand Co., The, Fremont, O.
Mossberg Pressed Steel Corp., Attleboro, Mass.
Williams, J. H., & Co., Buffalo, N. Y.

WRENCHES, SPUD, CLOSET.

American—American Pipe Tool Co., Chicago, Ill.
Ryan & Fitzpatrick Co., Inc., Troy, N. Y.
W.W.—Woodward-Wanger Co., Philadelphia, Pa.

WRENCHES, SPUD, RADIATOR.

American Pipe Tool Co., Chicago, Ill.
Beaton & Cadwell Mfg. Co., The, New Britain, Conn.
Capitol—U. S. Radiator Corp., Detroit, Mich.
Nye Tool & Machine Works, Chicago, Ill.
R. & F.—Ryan & Fitzpatrick, Troy, N. Y.

WRENCHES, STRUCTURAL AND CONSTRUCTION.

Armstrong—Armstrong Bros. Tool Co., Chicago, Ill.
B. & S.—The Billings & Spencer Co., Hartford, Conn.
Blackhawk—Blackhawk Mfg. Co., Milwaukee, Wis.
Bonney Forge & Tool Works, Allentown, Pa.
Herbrand Co., The, Fremont, O.
Iron City Star—Iron City Tool Works, Pittsburgh, Pa.
Lowell Wrench Co., Worcester, Mass.
Quikwerk—Warren Tool & Forge Co., Warren, O.
Williams, J. H., & Co., Buffalo, N. Y. "Superrench."

WRENCHES, SWIVEL, OIL WELL.

Herbrand Co., The, Fremont, O.

WRENCHES, TAP AND REAMER.

Alert Tool Co., Philadelphia, Pa.
Armstrong Mfg. Co., The, Bridgeport, Conn.
Bay State—Bay State Tap & Die Co., Mansfield, Mass.
B. & S.—Billings & Spencer Co., Hartford, Conn.
Brubaker, W. L. & Bros. Co., New York, N. Y.
Bullock Mfg. Associates, Springfield, Mass.
Butterfield & Co., Div. Union Twist Drill Co., Derby Line, Vt.
Card, Horsfield—Card, S. W., Mfg. Co., Div. of Union Twist Drill Co., Mansfield, Mass.
Champion Blower and Forge Co., Lancaster, Pa. "Champion."
Diener, Geo. W., Mfg. Co., Chicago, Ill.
Dikeman Mfg. Co., The, Norwalk, Conn.
G. T. D.—Greenfield Tap & Die Corp., Greenfield, Mass.
Goodell-Pratt Co., Greenfield, Mass.
Hold Fast—Millers Falls Co., Millers Falls, Mass.
Keystone—The Keystone Mfg. Co., Buffalo, N. Y.
Lutz—Lutz Co., Inc., Philadelphia, Pa.
Martin Machine Co., Turners Falls, Mass.
Millers Falls Co., Millers Falls, Mass.
Moore & Moore, Inc., Reading, Pa.
Morse Twist Drill & Machine Co., New Bedford, Mass.
Nichols—J. M. Carpenter Tap & Die Co., Pawtucket, R. I.
North Bros. Mfg. Co., Philadelphia, Pa. "Yankee."
Reliable—Conant & Donelson Co., Conway, Mass.

Standard Tool Co., Cleveland, O.
Starrett Co., The L. S., Athol, Mass.
Threadwell—Threadwell Tool Co., Greenfield, Mass.
"2-1"—Bergman Tool Mfg. Co., Buffalo, N. Y.
Union Tool Co., Orange, Mass.
Wells Tap & Die Co., Greenfield, Mass. "Pee Dee Que."
Winter Bros. Co., Wrentham, Mass. "Thistle."

WRENCHES, TAPPET.

Acro—Armstrong Bros. Tool Co., Chicago, Ill.
B. & S.—The Billings & Spencer Co., Hartford, Conn.
C. V.—Bonney Forge & Tool Works, Allentown, Pa.
Cornwell—The Cornwell Quality Tools Co., Cuyahoga Falls, O.
Milwaukee True Fit Forge Co., So. Milwaukee, Wis.
Mossberg Pressed Steel Corp., Attleboro, Mass.
Williams—J. H. Williams & Co., Buffalo, N. Y.

WRENCHES, TOOL POST.

Armstrong Bros. Tool Co., Chicago, Ill.
B. & S.—The Billings & Spencer Co., Hartford, Conn.
Bonney Forge & Tool Works, Allentown, Pa.
Williams—J. H. Williams & Co., Buffalo, N. Y.

WRENCHES, WAGON.

Oliver—Oliver-Barth Jack Co., Milwaukee, Wis.

WRINGERS, CHIP.

Tolhurst Machine Works, Troy, N. Y.

Y's, PIPE.

(See also "Fittings, Pipe.")

Abendroth Bros., Port Chester, N. Y.
Acheson Mfg. Co., Rankin, Braddock P. O., Pa.
Walworth Company, Boston, Mass.
American Foundry & Mfg. Co., St. Louis, Mo.
Blake Specialty Co., Rock Island, Ill.
Hajoca—Haines, Jones & Cadbury Co., Philadelphia, Pa.
K—Kuhns Bros., Dayton, O.
Pittsburgh Valve & Fittings Co., Barberton, O.
Richardson, Edro, Brass Co., Baltimore, Md.
Sanitary Company of America, Linfield, Pa.
Walworth Company, Boston, Mass.
Zurn, J. A., Mfg. Co., Erie, Pa.

YARN, FODDER (TARRED SISAL).

Columbian, Eureka—Columbian Rope Co., Auburn, N. Y.
Fischer & Hayes Rope & Steel Co., Chicago, Ill.
Fitler, The Edwin H. Co., Philadelphia, Pa.
Kelly, R. A., Co., Xenia, O.
Waterbury Co., The, New York, N. Y
Winne, Frank W. & Sons, Inc., Philadelphia, Pa.

YARN AND TWINE, ASBESTOS.

Allbestos Corporation, Philadelphia, Pa.
Argus Asbestos Co., Inc., Port Chester, N. Y.
Asbestos Fibre Spinning Co., North Wales, Pa.
Atlantic Asbestos Co., Philadelphia, Pa.
Braiding & Packing Works of America, Inc., Brooklyn, N. Y.
Garco—General Asbestos & Rubber Co., Charleston, S. C.
Janos Asbestos Co., New York, N. Y.
Keasbey & Mattison Co., Ambler, Pa.
Multibestos Company, Walpole, Mass.
Waite-Wild Asbestos Co., Framingham, Mass.

YARN, LATH (TARRED SISAL).

Columbian, Eureka—Columbian Rope Co., Auburn, N. Y.
Fischer & Hayes Rope & Steel Co., St. Louis, Mo.
Hooven & Allison Co., Xenia, O.
R. A. Kelly Co., Xenia, O. "Rakco."
Waterbury Co., The, New York, N. Y.
Whitlock—Whitlock Cordage Co., New York, N. Y.

Alphabetical List

of Manufacturers of Supplies, Tools and Machinery Sold by Mill and Industrial Supply Houses

A-1 Mfg. Co. (Metal Polish), Front and Wharton St., Philadelphia, Pa.
A. B. Stove Co. (Water heaters), Battle Creek, Mich.
A. P. S. Machine Co. (Compressors and pumps), 532 S. St. Clair St., Toledo, O.
A. J. Nipple & Pipe Cutting Co. (Wrought iron nipples), 171 Mercer St., New York, N. Y.
A. P. W. Co. (Toilet paper holders), 1273 Broadway, Albany, N. Y.
A. & J. Mfg. Co., The (Pipe couplings), 559 W. Lake St., Chicago, Ill. (See index to advertisements, pages 7, 8 and 9.)
A. & P. Regulator Co. (Vacuum pumps), Park Ridge, Ill.
Aaball Manufacturing Company (Oil burners), 815 Larrabee St., Chicago, Ill.
Abbe Engineering Co. (Coal mach'y, pumps, blowers), 30 Church St., New York, N. Y.
Abbott Ball Co., The (Burnishing balls), Elmwood Borough, Hartford, Conn.
Abbott Hardware Co. (Pipe cleaner), 638 Columbus Ave., New York.
Abbott Wire Brush Co. (Flue brushes), 3698 Washington St., Boston, Mass.
Abco Boiler Corporation (Heating boilers, etc.), 57 35th St., Brooklyn, N. Y.
Abendroth Bros. (Heating boilers, soil pipe, etc.), Port Chester, N. Y.
Abendroth & Root Mfg. Co. (Boilers, spiral pipe, steam fittings), Newburgh, N. Y.; 45 Broadway, New York.
Abernathy Vise & Tool Co., The (Vises), 2814 West 26th St., Chicago, Ill.
Abingdon Sanitary Mfg. Co. (Plumbing goods), Abingdon, Ill.
Abram Cement Tool Co. (Cement tools), 3818 Grand River Blvd., Detroit, Mich.; Windsor, Canada.
Abrasive Co., The (Grinding wheels), Tacony and Fraley Sts., Bridesburg, Philadelphia, Pa.; 566 W. Washington Blvd., Chicago, Ill.
Abrasive Machine Tool Co., The (Grinders), Dexter Road, East Providence, R. I.
Abrasive Mining & Mfg. Co. (Emery powder), Plymouth, Ind.; 25 Harrison Ave., Springfield, Mass.
Absorbent Wiping Materials Co. (Wiping cloths), 1510 So. Peoria St., Chicago, Ill.
Acetol Products, Inc. (Glass substitute), 21 Spruce St., New York, N. Y.
Acheson Mfg. Co. (Brass pipe fittings), Braddock P. O., Rankin, Pa.
(See index to advertisement, pages 7, 8 and 9.)
Acheson Oildag Co. (Lubricants), Port Huron, Mich.; 30 E. 42nd St., New York City.
Ackerman-Johnson Co. (Expansion bolts and anchors), 625 W. Jackson Blvd., Chicago, Ill.
Ackermite Company of America (Bearing metal), Janesville, Wis.
Acme Abrasive Co. (Grinding wheels), 1048 Webster Ave., Chicago, Ill.
Acme Asbestos Covering & Flooring Co. (Pipe covering), 214 N. Elizabeth St., Chicago, Ill.
Acme Brass Works (Plumbers' brass goods), 8211 Collins Ave. & Belt R. R., Detroit, Mich.; 150 Nassau St., New York; 525 Market St., San Francisco.
Acme Diamond Tool Co. (Emery wheel dressers), 170 Broadway, New York.
Acme Electric Welder Co. (Welding apparatus), 5617 Pacific Blvd., Los Angeles, Cal.
Acme Frost Proof Closet Mfg. Co., Baltimore, Md.
Acme Granolithic Co. (Laundry, trays, etc.), 2596 Washington St., Boston, Mass.
Acme Level & Mfg. Co. (Levels), Archbold, Ohio.
Acme Machine Tool Co. (Machine tools), 4955 Spring Grove Ave., Winton Place, Cincinnati, O.
Acme Machine Products Co. (Screws), Kalamazoo, Mich.
Acme Machinery Co., The (Bolt and nut mach'y), 4533 St. Clair Ave., N. E., Cleveland, O.
Acme Mfg. Co. (Pipe clamps, etc.), 75 Main St., Bangor, Me.
Acme Mfg. Co., Inc. (Plumbers' chain), 30 Manhan St., Waterbury, Conn.
Acme Oil Works (Sewer pipe cleaner), 125 S. Front St., Philadelphia, Pa.
Acme Pipe Strap Co. (Pipe straps, etc.), 944 Harper St., Detroit, Mich.
Acme Radiator Shield Co. (Radiator shields), 901 Gerke Bldg., Cincinnati, O.
Acme Mfg. Co., The, (oils, etc.) W. 56th St. and W. & L. E. Ry., Cleveland, O.
Acme Road Machinery Co. (Road mach'y), Frankfort, N. Y.; Boston, Mass.; 120 Liberty St., New York City,; Baltimore, Md.; Cincinnati.
Acme Rubber Mfg. Co., The (Hose, belting, packing), Trenton, N. J.; 1475 S. Michigan Ave., Chicago; 30 Church St., New York; 276 Devonshire St., Boston.
Acme Sanitary Pottery Co. (Vitreous plumbing goods), May St., Trenton, N. J.
Acme Shear Co., The (Tinners' snips), 82 Hicks St., Bridgeport, Conn.
Acme Specialty Mfg. Co., The (Bathroom specialties), 2298 Smead Ave., Toledo, O.
Acme White Lead & Color Works (Paint and varnish), 8250 St. Aubin, Detroit, Mich.
Acorn Brass Mfg. Co. (Oil pumps), 3220 W. Lake St., Chicago, Ill.
Acorn & Advance Filter Co. (Water filters), 235 W. 46th St., New York, N. Y.
Adams Co., The (Foundry mach'y, machine tools), Dubuque, Ia.
Adams Grease Gun Corp. (Grease guns), 329 5th Ave., New York, N. Y.
Adams, W. T., Machine Co. (Engines, boilers, sawmills), Corinth, Miss.
Adams & Jewell (Furnace lining), Rome, N. Y.
Adbro Mfg. Co. (Screwdrivers), 927 French St., Pittsburgh, Pa.
Adjustable Clamp Co. (Woodworkers' clamps), 413 No. Ashland Ave., Chicago, Ill. (See index to advertisements, pages 7, 8 and 9.)
Adkins, Young & Allen Co. (Packings and gaskets), 32 S. Jefferson St., Chicago, Ill.
Admiral Welding Machine Co. (Welding equipment), 1607 Locust, Kansas City, Mo.
Adriance Machine Works, Inc. (Punching presses), 80 Richards St., Brooklyn, N. Y.
Advance Car Mover Co., Inc. (Car movers or pushers), Appleton, Wis.
(See index to advertisement, pages 7, 8 and 9.)
Advance Electric Mfg. Co. (Electric motors), 6311 Maple St., Saint Louis, Mo.
Advance Felt & Cutting Co. (Felt specialties), 322 S. Jefferson St., Chicago, Ill.
Advance Furnace & Engineering Co. (Furnaces and blowers), Springfield, Mass.
Advance Goggle Co., Inc. (Industrial goggles), 3401 No. Kedzie Ave., Chicago, Ill.
Advance Hose Mfg. Co. (Hose and couplings), 4th & Cherry Sts., Philadelphia, Pa.
Advance Mfg. Co., The (Gas engines), B and Wayne Sts., Hamilton, O.
Advance Oil Burner Co. (Oil burners, etc.), 807 E. 15th St., Kansas City, Mo.
Advance Packing & Supply Co. (Gaskets and packings), 808 W. Washington Blvd., Chicago.
Advance Specialty Co. (Loose pulley oilers), Grand Rapids, Mich.
Aero Fire Alarm Co. (Fire alarms), 56 W. 45th St., New York; Seattle; San Francisco.
Aero Pulverizer Co. (Coal pulverizer), 90 West St., New York, N. Y.
Aero Works, Inc. (Band saws), 136 Liberty St., New York.
Aeroil Burner Co., Inc. (Fuel oil burners), Park Ave. at 13th St., West New York, N. J.
Aeroil Burner Co., Inc. (Fuel oil burners), 268 Hudson Ave., Union Hill, N. J.

Aetna Automatic Oil Burner Co. (Fuel oil burners), 31 Pine St., Providence, R. I.
Aetna Ball Bearing Mfg. Co. (Ball bearings), 2745 High St., Chicago, Ill.
Aetna Electric Appliance Co. (Electric water heaters), Dexter, Maine.
Aetna Engineering Co. (Pumps), Ashaway-Westerly, R. I.
Aetna Machine & Mfg. Co. (Wrenches), 426 So. Clinton St., Chicago, Ill.
Afco Mfg. & Sales Co. (Plumbers' specialties), 10017 St. Clair Ave., Cleveland, O.
Agner, R. C. (Wrenches, grease guns and cups), Burlington, Wis.
Agramid Products Co. (Belt dressing), 15 E. 40th St., New York, N. Y.
Ahlberg Bearing Co. (Ball bearing), 321 E. 29th St., Chicago, Ill.
Ahrens-Fox Fire Engine Co. (Steam fire engines), Colerain and Alfred Sts., Cincinnati, O.
Air Cleaning Equipment Co. (Closet augers), 1609 Prospect Ave., Cleveland, O.
Air Preheater Corp'n (Air Preheaters), 25 Broadway, New York, N. Y.
Air Reduction Sales Co. (Calcium carbide), 342 Madison Ave., New York, N. Y.
Airdry Corporation (Dryers, electric), Groton, N. Y.; 171 Milk St., Boston; 101 W. 43rd St., New York.
Air-tight Steel Tank Co. (Steel tanks), Mansion & B. & O. R. R., Pittsburgh, Pa.
Ajax Electric Hammer Corp. (Electric hammers), 117 W. 63rd St., New York, N. Y.
Ajax Fire Engine Works (Fire engines), 1272 Bedford Ave., Brooklyn, N. Y.
Ajax Flexible Coupling Co. (Shaft couplings), Westfield, N. Y.
Ajax Iron Works (Steam engines), Corry, Pa.
Ajax Mfg. Co., The (Forging, bending, bolt and nut mach'y), Chardon Rd., Cleveland, O.; 1369 Hudson Terminal Bldg., New York; 621 Marquette Bldg., Chicago.
Ajax Mfg. Co. (Reamers, saw tools, etc.), 848 Jackson St., Pittsburgh, Pa.
Ajax Metal Co., The (Metals and castings), 46 Richmond St., Philadelphia, Pa., New York, Boston, Washington, Chicago, St. Louis, San Francisco, Cleveland, Birmingham, Louisville.
Ajax Rope Co. (Rope), 95 Liberty St., New York, N. Y.
Akron Belting Co., The (Belting and hose), 74 Canal St., Akron, O.
Akron Metallic Gasket Co. (Gaskets), 149 N. Union St., Akron, O.
(See index to advertisement, pages 7, 8 and 9.)
Alabama Pipe Co. (Soil pipe and fittings), Anniston, Ala. (Sales agents for Coosa Pipe & Foundry Co., Gadsden Pipe Co., Agricola Pipe Co., Gadsden, Ala.; Talladega Pipe Co., Talladega, Ala.; Imperial Pipe Co., Superior Pipe Co., Bessemer, Ala.; Ornamental Foundry Co., Standard Foundry Co., Union Foundry Co., Anniston, Ala.; Rabe Pipe & Foundry Co., Chattanooga, Tenn.; Alabama Pipe & Foundry Co., Anniston, Ala.
Alamo Iron Works (Foot valves), P. O. Box 1176, San Antonio, Tex.
Albany Hardware Specialty Mfg. Co. (Wrenches), Albany, Wis.
Albany Iron Works (Sawmill mach'y, etc.), Albany, Ore.
Albany Lubricants Co. (Lubricants), 6 Varick St., New York.
Albany Steam Trap Co., The (Power plant appliances), 317-319 Pearl St., Albany, N. Y.
Albaugh-Dover Mfg. Co. (Gears), 2100 Marshall Blvd., Chicago, Ill.
Alberene Stone Co. (Laundry trays, sinks, etc.), 153 W. 23rd St., New York, N. Y.
Alberger Heater Co. (Feed water and tank heaters), 281 Chicago St., Buffalo, N. Y.; 53 W. Jackson Blvd., Chicago, Ill.
Alberger Pump & Condenser Co. (Pumps, condensers, heaters, etc.), 149 Broadway, New York, N. Y. 22 W. Monroe St., Chicago; Boston; Philadelphia; St. Louis.
Albertson & Company (Valve tools), 3100 Floyd River Rd., Sioux City, Iowa.
Albion Mfg. Co. (Asbestos products), 709 1st Ave., Seattle, Wash.
Albrass Company, Inc. (Plumbing fittings), Coxsackie, N. Y.
Albright Aerating Filter Co., The (Water filters), Muncie, Ind.
Albuquerque Foundry & Machine Works (Metals), E. Hazeldine & R. R. Tracks, Albuquerque, N. M.
Aldon Co., The (Railway track tools), 3338 Ravenswood Ave., Chicago, Ill.
Aldrich Pump Co., The (pumps and hydraulic mach'y), foot of Pine St., Allentown, Pa.; 1936 McCormick Bldg., Chicago; 1314 Keenan Bldg., Pittsburgh, Pa.; 30 Church St., New York.
Alemite Die-Casting & Mfg. Co. (Hand trucks), 2640 Belmont Ave., Chicago, Ill.
Alert Tool Co. (Wrenches, scrapers, etc.), 1323 W. Tioga St., Philadelphia, Pa.

Alexander Leather Belting Co., Allentown, Pa.
Alexander Bros., Inc. (Leather belting), Water & South Sts., Philadelphia.
Alexander, E. P., & Son, Inc. (Leather belting), Third and Huntingdon Sts., Philadelphia, Pa.
Alexander, Morrison & Co., Inc. (Heating boilers), 111 Gotthart St., Newark, N. J.
Allan, A., & Son (Bearing metals), Harrison, N. J.
Allan-Diffenbaugh Wrench & Tool Co. (Wrenches), Baraboo, Wis.
Allbestos Corp. (Asbestos textiles), 21st and Godfrey Sts., Philadelphia, Pa.
Allegheny Steel Co. (Iron and steel products), Oliver Bldg., Pittsburgh, Pa.; 1100 3d Nat'l Bank Bldg., St. Louis; 501 Fifth Ave., New York; 129 So. Jefferson St., Chicago, Ill.
Allen, Chas. I. (Wooden handles), Pequabuck, Conn.
Allen Engineering Co., (Derricks), 14 N. 55th St., Philadelphia, Pa.
Allen Filter Co., The (Water filters and coolers), 25 S. St. Clair St., Toledo, O.
Allen Fire Dept. Supply Co., The (Fire protection supplies, 159 Aborn St., Providence, R. I.; 43 Murray St., New York, N. Y.
Allen, John F., Co. (Pneumatic tools), 370 Girard Ave., New York, N. Y.
Allen, L. B., Co., Inc. (Solder), 4519 No. Lincoln St., Chicago, Ill.; Salt Lake City; Seattle; San Francisco; Winnipeg.
Allen, L. D., Metal Works (Babbitt metal), 624 So. Michigan Ave., Chicago, Ill.
Allen Machine Co. (Hydraulic machinery), 12th & East Sts., Erie, Pa.
Allen Mfg. Co., Inc., The (Set screws), 133 Sheldon St., Hartford, Conn.
Allen, Wm., Sons Co. (Boilers and tanks), 65 Green St., Worcester, Mass.
Allen Wrench & Tool Co. (Wrenches and drills), 754 Eddy St., Providence, R. I.
Allen, W. D., Mfg. Co. (Steam and water brass goods), 566 W. Lake St., Chicago, Ill.; 69 Warren St., New York. (See index to advertisements, pages 7, 8 and 9.)
Allen & Billmyre Company, Inc. (Air compressors), 544 Grand Central Palace, New York, N. Y.
Allen & Lee Mfg. Co. (Fuel oil burners), Wichita, Kans.
Allencliff Engineering Co. (Centrifugal pumps), 638 E. Livingston St., Columbus, O.
Alliance Vitreous China Co., The (Bathroom fittings), Alliance, O.
Allied Belting Co. (Canvas belting), Greenville, O.
Allington & Curtis Mfg. Co., The (Blowers, fans, etc.), 1500 Holland Ave., Saginaw, Mich.
Allis-Chalmers Mfg. Co. (Power, electrical and industrial machinery), West Allis, Milwaukee, Wis. Branch offices in principal cities.
Allith-Prouty Co. (Hardware specialties), Danville, Ill.; 136 Pearl St., Boston; 32 Howard St., New York; 521 Commerce St., Philadelphia; San Francisco.
All Rite Company, The (Glue pots), Rushville, Ind.
All-Steel-Equip Co. (Steel shelving, etc.), Griffith Ave., Aurora, Ill.
Almond, T. R., Mfg. Co. (Chucks, transmission, tools, etc.), Maple Ave., Ashburnham, Mass.
Almy Water-Tube Boiler Co. (Boilers), 184 Allens Ave., Providence, R. I.
Alto Manufacturing Co. (Tapping machines), 1647 Wolfram St., Chicago, Ill.
Altoona Tool & Industrial Equipment Co. (Tool holders), Box 94, Bellwood, Pa.
Alsteel Mfg. Co. (Baling press and hose clamps), Battle Creek, Mich.
Aluminum Brazing Solder Co. (Aluminum solder), Ridley & Morton Sts., Chester, Pa.
Aluminum Company of America (Aluminum products), Oliver Bldg., Pittsburgh, Pa.
Alvey Mfg. Co. (Conveying mach'y), 3201 So. Broadway, St. Louis, Mo.; Boston; New York; Philadelphia; San Francisco; Chicago; Cleveland; Atlanta; Buffalo; Seattle.
Alvord Reamer & Tool Co. (Reamers), Millersburg, Pa.; New York, Philadelphia, Pittsburgh, Chicago, San Francisco; Louisville.
Amco Sales Corp. (Tanks, small tools, etc.), 1213 Washington Blvd., Chicago, Ill.
Ament, H. B., Glue Company (Pulley cover cement), 608 Camp St., Louisville, Ky.
America Heating & Supply Co. (Radiator shields), 630 Race St., Rockford, Ill.
American Air Compressor Works, The (Pumps and compressors), 558-562 Hamilton Ave., Brooklyn, N. Y.
American Airdry Corporation (Air heaters), 7740 South Chicago Ave., Chicago, Ill.
American Asbestos Co., Norristown, Pa.
American Asphalt Paint Co. (Waterproofing paint), 844 Rush St., Chicago, Ill.
American Atmos Corp. (Mine rescue equipment), 810 Hay St., Pittsburgh, Pa.; 105 W. 40th St., New York City.

American Ball Co. (Steel balls), 115 Clifford St., Providence, R. I.
American Belting Companies (Belting and hose), 1626 Bank St., Baltimore, Md.
American-Blakeslee Mfg. Co. (Gas engines), 5400 2nd Ave., Birmingham, Ala.
American Blower Co. (Blowing and ventilating apparatus), 1450 David Whitney Bldg., Detroit, Mich.
American Boiler Life Co. (Boiler compound), 20 No. Market St., Boston, Mass.
American Bolt Co. (Bolts, nuts, washers), 39th St. & 10th Ave., Birmingham, Ala.
American Bolt & Screw Case Co. (Cases for bolts, etc.), 2nd and Canal St., Dayton, O.
American Brake Lining Co., (Brake lining, etc.), Sellersville, Pa.
American Brass Co. (Tubing, sheets, rods) 414 Meadow St., Waterbury, Conn.
American Brass Mfg. Co. (Brass goods), 1525 E. 49th St., Cleveland, O.
American Brass Novelty Co. (Plumbing brass goods), Grand Haven, Mich.
American Brass & Copper Co., The (Plumbing brass goods, etc.), 138 Lafayette St., New York, N. Y.
American Brass & Iron Co. (Plumbing supplies), 6425 Crystal St., Detroit, Mich.
American Brattice Cloth Co. (Brattice cloth), Warsaw, Ind.
American Broach & Machine Co. (Broaching presses), Ann Arbor, Mich.
American Burnall Corp. (Fuel economizers), 120 Broadway, New York, N. Y.
American Cable Co., Inc. (Wire rope, etc), 105 Hudson St., New York, N. Y.
American Can Co. (Oil pumps), 120 Broadway, New York, N. Y.
American Car & Foundry Co. (Electric metal heaters), 30 Church St., New York, N. Y.
American Carbolite Co. (Carbide), Duluth, Minn.
American Cast Iron Pipe Co. (Iron pipe), Birmingham, Ala.; 718 Scarritt Bldg., Kansas City; 261 Broadway, New York; 416 Praetorian Bldg., Dallas; 461 Market St., San Francisco.
American Casting & Mfg. Corp. (Nails, washers, etc.), 30 Main St., Brooklyn, N. Y.
American Cement Machine Co., Inc. (Contractors' equipment), Keokuk, Ia.; New York, Cambridge, Richmond, Pittsburgh, Atlanta, Indianapolis, Louisville, St. Louis, New Orleans, Denver, Spokane, Minneapolis.
American Chain Co., Inc. (Chains), 929 Connecticut Ave., Bridgeport, Conn.; Boston; Chicago; New York; Philadelphia; Pittsburg; Portland; San Francisco.
American Chemical Paint Co., Ambler, Pa.
American Chemical & Engineering Co. (Pulley covering), 546 W. Washington Blvd., Chicago, Ill.
American Compound Co. (Welding supplies), 385 Atlantic Ave., Boston, Mass.
American Compressor & Pump Co. (Air compressors), 801 East Pratt St., Baltimore, Md.
American Copper & Brass Works (Water stills), 612-618 E. Front St., Cincinnati, O.
American Crucible Products Co. (Babbitt metal, etc.), Elyria, O.
American Die Casting & Pattern Co. (Sinks), Columbus, O.
American District Steam Co. (Steam heating supplies), North Tonawanda, N. Y.; Chicago, New York, Seattle, Tacoma.
American Electric Motors, Inc. (Motors), 57 Erie St., Milwaukee, Wis.
American Electrical Heater Co. (Soldering irons, etc.), 6125 Woodward Ave., Detroit, Mich.
American Emery Wheel Works (Abrasives), 325 Waterman St., Providence, R. I.
American Enameled Products Co. (Bathroom accessories), 2101 Indiana Ave., Chicago, Ill.
American Engine Co. (Gas engines), 6210 2nd St., Detroit, Mich.
American Engine & Boiler Works (Baling presses), Tonawanda, N. Y.
American Engineering Co., The (Hoists and stokers), Aramingo and Cumberland St., Philadelphia, Pa.
American Equipment Co. (Chucks), 5928 2nd St., Detroit, Mich.
American Equipment Co. (Bolts, screws, nuts), Box 98, Norristown, Pa.
American Filter Co. (Water filters), 655 Buffum St., Milwaukee, Wis.
American Fixture Company (Electric lamp extensions), 232 W. Water St., Milwaukee, Wis.
American Flexible Bolt Co. (Bolts, boiler stays), Zelienople, Pa.; Pittsburgh, Philadelphia, Chicago, San Francisco, Cleveland.
American Floor Surfacing Machine Co., The (Floor surfacing machines), 559 So. St. Clair St., Toledo, O.
American Fluid Motor Co. (Hydraulic motors), 2412 Aramingo Ave., Philadelphia, Penna.
American Fork & Hoe Co. (Forks and hoes), B. F. Keith Bldg., Cleveland, O.
American Foundry Equipment Co. (Foundry equipment), 366 Madison Ave., New York City; 2935 W. 47th St., Chicago.
American Foundry & Mfg. Co. (Steam, gas and water supplies), 10th, 11th, Hebert and Wright Sts., St. Louis, Mo.
American Foundry & Mfg. Co., The (Flexible shaft couplings), Frederick, Md.
American Foundry & Pipe Co. (Cast iron plumbing goods), Penns Station, Pa.
American Gage Co. (Amplifying gages), Dayton, O.
American Gage Co. (Limit gages), Newark, N. J.
American Gas Furnace Co. (Gas furnaces, etc.), Spring and Lafayette Sts., Elizabeth, N. J.
American Gasket Company (Gaskets), 904 Teutonia Ave., Milwaukee, Wis.
American Glue Co. (Abrasive cloths, papers and glue), 121 Beverly St., Boston, Mass.; New York; Chicago; St. Louis; Philadelphia.
American Gut String Mfg. Co. (Leather belt lacing), 1140 W. 47th Pl., Chicago, Ill.
American Hard Rubber Co. (Closet tank floats), 11 Mercer St., New York, N. Y.
American Heater Corp. (Water heaters, etc.), 1100 N. 6th St., St. Louis, Mo.
American Highspeed Chain Co. (Transmission chain), 225 E. South St., Indianapolis, Ind.; 30 Church St., New York; The Bourse, Philadelphia; 53 W. Jackson Blvd., Chicago.
American Hoist & Derrick Co. (Hoisting and logging apparatus), 63 S. Robert St., St. Paul, Minn; Chicago; New York; New Orleans; Pittsburgh; Seattle.
American Injector Co. (Steam specialties), 1481-91 14th Ave., Detroit, Mich.
(See index to advertisement, pages 7, 8 and 9.)
American Kron Scale Co. (Scales), 430 E. 53d St., New York, N. Y., Baltimore, Boston, Chicago, Cleveland, Louisville, Ky., Minneapolis, Philadelphia, Pittsburgh, Providence, San Francisco, Wilson, N. C.
American Lace Leather Co., Inc. (Belt lacing), Virginia and Canal Sts., Richmond, Va.
American La France Fire Engine Co. (Extinguishers, fire), Elmira, N. Y.
American Lastite Co. (Pipe and tank coatings), 3166 Lincoln Ave., Chicago, Ill.
American Laundry Machinery Co. Specialty Dept. (Waste washing machinery, etc.), Ross & Section Aves., Norwood, Cincinnati, O.; New York; St. Louis; Dallas; Los Angeles; Seattle; Chicago; Boston; Philadelphia; Kansas City; San Francisco.
American Lead Co. (Lead pipe, etc.), 3112-14 Penn Ave., Pittsburgh, Pa.; New York, N. Y.
American Leather Belting Co. (Leather belting), 1455 W. Congress St., Chicago, Ill.
American Logging Tool Co. (Logging tools), Evart, Mich.
American Lubricator Co. (Engineers' supplies), Summit and Wabash R.R., Detroit, Mich.
American Machine & Foundry Co. (Rotary Pumps), 5502-24 Second Ave., Brooklyn, N. Y.
American Manganese Bronze Co. (Bearing metal, brass pipe fittings, etc.), Holmesburg, Philadelphia, Pa.
American Mfg. Co., The (Rope and twine), Noble and West Sts., Brooklyn, N. Y.; Boston; Philadelphia; St. Louis.
American Mfg. Co. (Castings, floats), 408 Ray St., Dayton, O.
American Metal Hose Co., The (Metallic hose), 67 Jewelry St., Waterbury, Conn.; 173 Lafayette St., New York; 111 W. Washington St., Chicago; 201 Devonshire St., Boston, Mass.
American Metal Products Co. (Bearing bronze), 1351 Burnham St., Milwaukee, Wis.
American Metallic Packing Co. (Packings), 3621-25 Mexico St., North side, Pittsburgh, Pa.; 411 Lincoln Road, Brooklyn, N. Y.
American Meter Co. (Gas meters), 122 S. Michigan Ave., Chicago, Ill.; 105 W. 40th St., New York; Arch and 22d Sts., Philadelphia.
American Milling Machine Co., The (Milling machines), Richmond St. and McLean Ave., Cincinnati, Ohio.
American Mills Co. (Twines), 262 Ivy St., Atlanta, Ga.; New York, Chicago.
American Mining Tool Co. (Mining tools), Ottumwa, Ia.
American Moistening Co. (Humidifiers), 251 Causeway, Boston, Mass.
American Monorail Co. (Material Handling Equipment), 6705 Pear Ave., Cleveland, Ohio.
American Nickel Corporation (Nickel products), Oliver Bldg., Pittsburgh, Pa.
American Nokol Co. (Oil burners), 215 N. Michigan Ave., Chicago, Ill.
American Non-Gran Bronze Corp. (Bushings), Berwyn, Pa.

American Numbering Machine Co. (Numbering machines), Shepherd Ave., Cor. Atlantic Ave., Brooklyn, N. Y.; 123 West Madison St., Chicago.
American Nut & Bolt Fastener Co. (Locknuts and washers), 2029-45 Doerr St., Pittsburgh, New Orleans, Chicago, Detroit, New York, San Francisco.
American Oil Corp. (Oils, greases), Jackson, Mich.; 3000 Military Ave., Detroit, Mich.; 11 Broadway, N. Y.
American Oil Pump & Tank Co., The (Oil tanks and pumps), Findlay and Dalton St., Cincinnati, O.; 1418 Race St., Philadelphia; 308 W. 58th St., New York; 1110 American Bldg., Baltimore, Md.; 1324 Grand Ave., Kansas City, Mo.; 704 N. Broadway, Vicksburg.
American Oil Refining Co. (Boiler compound), 1350 S. Racine Ave., Chicago, Ill.
American Optical Co. (Goggles), 10 So. Wabash Ave., Chicago, Ill.
American Pin Co. (Division of Scovill Mfg. Co.) (Plumbers' brass goods), Waterbury, Conn.
American Pipe Bending Machine Co. (Pipe benders), 37-39 Pearl St., Boston, Mass.
American Pipe Tool Co. (Pipe tools), 4533 W. Harrison St., Chicago, Ill.
American Pipe & Flange Co. (Pipe and fittings), 95 Liberty St., New York.
American Plumbing & Heating Co. (Radiator trucks), 1931 Nicollet Ave., Minneapolis, Minn.
American Porcelain Co., New Brighton, Pa.
American Pulley Co., The (Steel pulleys), 4200 Wissahickon Ave., Philadelphia, Pa.; 114 S. Clinton St., Chicago; 33-35 Greene St., New York; 165 Pearl St., Boston; 536 First Ave., S. Seattle; 14 Natoma St., San Francisco.
American Pump & Tank Co. (Oil pumps, tanks, etc.), 302 W. 58th St., New York, N. Y.
American Radiator Co. (Heating apparatus), 40 W. 40th St., New York, N. Y.
American Railway Hydrant & Valve Co. (Hydrants), 535 Bay St., Stapleton, S. I., N. Y.
American Regulator Co. (Gas burners and regulators), 2843 Glenmore Ave., Pittsburgh, Pa.
American Regulator Co. (Oxy-acetylene regulators, etc.), 1420 W. Baltimore St., Baltimore, Md.
American Renoleo Co. (Boiler treatment), York, Pa.
American Ring Co. (Bathroom fittings), 531 Bank St., Waterbury, Conn.
American Roller Bearing Co. (Roller bearings), 416-420 Melwood Ave., Pittsburgh, Pa.
American Rolling Mill Co., The (Iron and steel plates), Middletown, O.; New York; 122 S. Michigan Ave., Chicago; St. Louis, Detroit, Pittsburgh, Cincinnati, Cleveland, San Francisco, Buffalo, New Orleans, Philadelphia, Toronto.
American Rubber Mfg. Co. (Mechanical rubber goods), Park Ave. & Watt St., Oakland, Cal.
American Rubber Products Corp. (Plumbing specialities), 480 Henderson St., Jersey City, N. J.
American Rubbing Stone Co. (Sharpening stones), 1216 Gest St., Cincinnati, O.
American Rust Proof Co. (Rust preventives, etc.), 8 W. 40th St., New York City.
American Safety Lamp & Mine Supply Co. (Mine lamps, signals, etc.), 1321 Capouse Ave., Scranton, Pa.
American Sanitary Products Co., The (Septic tanks), Elm Court, Stamford, Conn.
American Sanitary Mfg. Co. (Plumbing brass goods), Abingdon, Ill.
American Saw Mill Machinery Co. (Sawmill mach'y), Main St., Hackettstown, N. J.; 50 Church St., New York; 314 Williamson St., Savannah, Ga.; New Orleans; Bourse Bldg., Philadelphia, Pa.
American Saw & Mfg. Co. (Band saws, screwdrivers, etc.), Boylston St., Springfield, Mass. (See index to advertisement, pages 7, 8 and 9.)
American Saw & Tool Works (saws, etc.), 2431 W. 14th St., Chicago, Ill.
American Scale Co. (Scales and farm tools), 1511 Cypress St., Kansas City, Mo.
American Schaeffer & Budenberg Corporation, successors to The Schaeffer & Budenberg Mfg. Co. and American Steam Guage & Valve Mfg. Co. Division (Steam gauges, etc.), Berry and So. 5th Sts., Brooklyn, N. Y.; Boston; Buffalo; Chicago; Cleveland; Detroit; Los Angeles; New Orleans; Philadelphia; Pittsburgh. (See index to advertisement, pages 7, 8 and 9.)
American Screw Co. (Screws and bolts), 21 Stevens St., Providence, R. I.
American Sheet & Tin Plate Co. (Sheets, roofing, etc.), Frick Bldg., Pittsburgh, Pa.; 208 S. LaSalle St., Chicago; Cincinnati; Denver; Detroit; New Orleans; 71 Broadway, New York; Philadelphia; St. Louis.
American Smelting & Refining Co. (Metals), 120 Broadway, New York, N. Y.
American Soap & Washoline Co. (Metal Polish), Cohoes, N. Y.
American Solder & Flux Co., (Blow torches and solder), 2910 N. 16th St., Philadelphia, Pa.
American Specialty Co. (Drills and sockets), 323 W. Ohio St., Chicago.
American Specialty Mfg. Co. (Wire rope dressing), Iron Court & Erie Ry., Cleveland, O.
American Spiral Pipe Works (Spiral pipe and fittings), W. 14th and S. 48th Ave., Chicago, Ill.; 50 Church St., New York.
American Stamping Co. (Oil cups), 81 Burchard St., Battle Creek, Mich.
American Steam Packing Co. (Rubber packing), 514 Atlantic Ave., Boston, Mass.
American Steam Pump Co. (Pumps), Battle Creek, Mich.; 17 Battery Pl., New York; 1220 Monadnock Block, Chicago. (See index to advertisement, pages 7, 8 and 9).
American Steel Co. (Iron and steel products), Ellwood City, Pa.
American Steel Scraper Co., The (Scrapers and wheelbarrows), Sidney, Ohio.
American Steel Tube Co., The (Steel tubing), Buckeye St. and T. T. R. R., Toledo, Ohio.
American Steel Wool Mfg. Co. (Steel wool), 9-13 Desbrosses St., New York, N. Y.
American Steel & Wire Co. (Steel and wire products), 208 S. LaSalle St., Chicago, Ill. Branches in all principal cities.
American Stove Co. (Heating apparatus), 827 Chouteau Ave., St. Louis, Mo.
American Supply Co. (Leather belting), 135-137 Washington St., Providence, R. I.
American Swiss File & Tool Co. (Files), 410-416 Trumbull St., Elizabeth, N. J.
American Thermo-Ware Co., Inc. (Eye protectors), 16 Warren St., New York, N. Y.
American Thermostat Co., The (Heat regulators), 226 Jelliff Ave., Newark, N. J.
American Tin & Terne Plate Co. (Plates and roofing), 24th and Vine Sts., Philadelphia, Pa.
American Tool Works Co., The (Metal working mach'y), Pearl St. and Eggleston Ave., Cincinnati, O.
American Tool Works, Inc. (Universal joints), 25 High St., Hartford, Conn.
American Tool & Machine Co. (Transmission mach'y, machine tools, etc.), 10 High St., Boston, Mass.; 290 Broadway, New York. (See index to advertisements, pages 7, 8 and 9.)
American Tripoli Co. (Filtering stones), Seneca, Mo.
American Tube Works (Brass and copper tubing), 10 Oliver St., Boston, Mass.; 501 5th Ave., New York; 14 E. Jackson Blvd., Chicago; 543 Bourse, Philadelphia.
American Tube & Stamping Co. (Stamped and drawn work), 471 Hancock Ave., Bridgeport, Conn.
American Valve Co. (Valves), 170 Mansion St., Coxsackie, N. Y.
American Vulcanized Fibre Co. (Fibre products), Maryland and Beech Sts., Wilmington Del.
American Warming & Ventilating Co. (Stack heaters), Elmira, N. Y.
American Washer Works (Washers and gaskets), 91 Wallabout St., Brooklyn, N. Y.
American Water Motor Co., The (Water motors), 796 E. 11th Ave., Columbus, O.
American Water Softener Co. (Water softeners), S. E. corner 4th and Lehigh Ave., Philadelphia, Pa.
American Well Works, The (Pumping and drilling mach'y), Aurora, Ill.; 38 S. Dearborn St., Chicago.
American Well & Prospecting Co. (Pumping and drilling mach'y), 301 N. 7th St., Corsicana, Tex.; El Dorado, Ark.; Houston, Tex.; Los Angeles, Calif.
Ames, B. C., & Co. (Metal working mach'y), Waltham, Mass.
Ames Iron Works (Boilers and engines), Oswego, N. Y.
Ames, Oliver, & Sons (Shovels), North Easton, Mass.
Ames Shovel & Tool Co. (Shovels, scoops and spades), Ames Bldg., Boston, Mass.
Ames Sword Co. (Polishing belts), Foot of Grape St., Chicopee, Mass.
Ames, W., & Co. (Spikes, bolts, etc.), Communipaw Ave., Jersey City, N. J.
Amisson, J., & Sons Pottery Co. (Sanitary pottery), 2421 Wilson Ave., Bristol, Pa.
Ams, Max, Machine Co., The (Sheet metal working mach'y), 101 Park Ave., New York; 20 E. Jackson Blvd., Chicago, Ill.
Amthor Testing Instrument Co. (Scales), 309 Johnson St., Brooklyn, N. Y.
Anchor Post Fence Co. (Hand trucks), 9 East 38th St., New York, N. Y.
Anchor Stone Co. (Laundry trays), 2937 Lyndale Ave., S., Minneapolis, Minn.
Andale Engineering Co. (Pump strainers), North American Bldg., Philadelphia, Pa.; 50 Church St., New York.
Anderson Band Saw Co., Inc., The (Band Saw Machines), Dunedin, Fla.
Anderson Bros. Mfg. Co. (Balancing ways), Kishwaukee & 18th Sts., Rockford, Ill.
Anderson Chemical Co. (Belting cement), Passaic, N. J.

Anderson Die Machine Co. (Tapping machines), 544 Iranistan Ave., Bridgeport, Conn.
Anderson Mfg. Co. (Fuel economizers), 1922 Arch St., Philadelphia, Pa.
Anderson, V. D., Co., The (Steam traps and plantation mach'y), W. 96th St. and Nickel Plate R. R., Cleveland, O.; Union Trust Bldg., Baltimore; 426 Plymouth Court, Chicago; 366 3rd Ave., New York, 537 Race St., Philadelphia. (See index to advertisement, pages 7, 8 and 9.)
Anderson, W. H., Tool & Supply Co. (Small tools.) 2178 Franklin St., Detroit, Mich.; 303 Bridge St. N. W., Grand Rapids, Mich.
Andrew, M. L., & Co., (Woodworking mach'y), 3215 Colerain Ave., Cincinnati, O.
Andrews Heating Co. (Heating and sanitary apparatus), 2629 University Ave., S. E., Minneapolis, Minn.
Andrews Steel Co. (Steel mill products), 9th & Lowell Sts., Newport, Ky.
Andrews, Thomas G., Co. (Laundry tray wastes), 32 Wendell St., Boston, Mass.
Angell Belt Hook Co. (Belt hooks), 16 Warren Ave., Providence, R. I.
Angle Steel Stool Company, Inc. (Factory stools), Plainwell, Mich.; 325 W. Madison St., Chicago.
Angle Union Corporation (Unions), 1649 Third Ave., New York, N. Y.
Anker Engineering Co. (Hydraulic machinery), Widener Bldg., Philadelphia, Pa.
Ankyra Mfg. Co. (Expansion bolts), 149 W. Berkley St., Wayne Junction, Philadelphia, Pa.
Anniston Cordage Co. (Rope), Anniston, Ala.
Anniston Foundry Co. (Soil pipe and fittings), Anniston, Ala.
Anniston Soil Pipe Co. (Soil pipe and fittings), Anniston, Ala.
Ansonia Clock Co. (Clocks), 330 5th Ave., New York, N. Y.
Ansonia Corporation (Garbage burners, ejectors, etc.), 71 8th Ave., New York, N. Y.
Ansonia Novelty Co., The (Oilers), 285 Main St., Ansonia, Conn.
Anthes Force Oiler Co. (Pump oilers), Fort Madison, Ia.
Anthony Co., The (Fuel oil burners), 138 West Ave., Long Island City, N. Y.
Anti-Borax Compound Co., The (Welding compounds), 1506 Wall St., Fort Wayne, Ind.
Anti-Friction Belt Dressing Co. (Belt dressing), 109 Cheapside St., Baltimore, Md.
Antiseptol Liquid Soap Co. (Liquid soap and dispensers), 572 W. Randolph St., Chicago, Ill.
Apex Brass Mfg. Co., The (Cocks and faucets), 3063 E. 61st St., Cleveland, O.
Apex Electrical Mfg. Co. (Grinders), 1067 E. 152nd St., Cleveland, Ohio.
Apex Machine Co., The (Die heads, etc.), Dayton, O.
Apex Stamping Co. (Blow torches), Riverdale, Ill.
Apollo Steel Co. (Steel sheets), Apollo, Pa.
Appleton Car Mover Co. (Car movers), 547 Eldorado St., Appleton, Wis.; Oshawa, Can. (See index to advertisement, pages 7, 8 and 9.)
Appleton Electric Co. (Cable reels for portable electric machines), 1713 Wellington Ave., Chicago, Ill.
Arcade Manufacturing Co. (Factory trucks), Freeport, Ill.
Arcadia Lubricator Company (Lubricators), 1355 West Ocean Ave., Long Beach, Cal.
Archer Iron Works (Industrial cars), 2436 W. 34th Pl., Chicago, Ill.
Argus Smelting Co. (Babbitt metal), 393 Seventh Ave., New York, N. Y.
Arguto Oilless Bearing Co. (Bearings), 149 W. Berkley St., Wayne Junction, Philadelphia, Pa.
Argyle Railway Supply Company (Portable electric drills), 327 So. La Salle St., Chicago, Ill.
Arlington Mfg. Co., The (Paints, cements, etc.), 1329 Harrison Ave., S. W., Canton, O.; 133 W. Washington St., Chicago, Ill.; 536 Main St., East Orange, N. J.
Armour Leather Co. (Leather for belting), 406 N. 3rd St., Philadelphia, Pa.
Armour Sand Paper Works (Abrasive papers), 1355 W. 31st St., Chicago, Ill.; 120 Broadway, New York; 49 Commercial Wharf, Boston, Mass.; 917 Noble St., Philadelphia; 607 Postal Tel. Bldg., San Francisco; Grand Rapids; Jamestown, N. Y.; Rochester; Seattle; Portland.
Armstrong-Blum Mfg. Co. (Metal working tools), 339 N. Francisco Ave., Chicago, Ill. (See index to advertisement, pages 7, 8 and 9.)
Armstrong Brothers Tool Co. (Machinists' tools), 335 No. Francisco Ave., Chicago, Ill. (See index to advertisement, pages 7, 8 and 9).
Armstrong Co., The (Cements, putty, etc.), 241 South St. & Post Ave., Detroit, Mich.
Armstrong Cork Co. and Armstrong Cork & Insulation Co. (Cork products), 124 24th St., Pittsburgh, Pa.; Baltimore, Boston, Chicago, Cincinnati, New York.
Armstrong Machine Works (Steam traps), Three Rivers, Mich.
Armstrong Mfg. Co., The (Stocks, dies, vises, etc.), 284 Knowlton St., Bridgeport, Conn.
Armstrong Mfg. Co. (Saw tools), 4 Second St., Portland, Ore.
Armstrong Mfg. Co. (Boiler gates), Pennsylvania Ry. & Liberty St., Springfield, O.
Armstrong Mfg. Co. (Well drilling mach'y), Waterloo, Ia.; Ft. Worth, Tex.; Scottsville, Ky.; Baxter Springs, Kansas.
Armstrong Mfg. Co., The (Lawn sprinklers), Huntington, W. Va.
Armstrong Truck Co. (Trucks and casters), North Wales, Pa.
Arnold's, G. W., Son (Gas engines), Ionia, Mich.
Arnold & Arnold Nipple Co. (Pipe nipples), 2850 Lincoln Ave., Chicago, Ill.
Arr-An-See Mfg. Co. (Boiler compounds), 5421 Janet St., St. Louis, Mo.
Arrow Boiler Compound Co. (Boiler compounds), 3929 Olive St., St. Louis, Mo.
Arrow Tools, Inc. (Forged tools), 514 Laflin St., Chicago, Ill.
Art Brass Co., Inc. (Bathroom fixtures), 299 E. 134th St., New York, N. Y.
Art Metal Construction Co. (Steel shelving), Jamestown, N. Y. Branch offices in principal cities.
Art Metal Products Co. (Radiator shields), 514 So. Green St., Chicago, Ill.
Art Metal Radiator Cover Co. (Radiator covers), 1732 No. Kolmar, Chicago, Ill.
Art Tool Co. (Boring tools), 16 Montgomery St., Bridgeport, Conn.
Arter Grinding Machine Co., The (Grinding machines), 72 Commercial St., Worcester, Mass.
Artisan Mfg. Co. (Lathes, etc.), 839 W. 6th St., Cincinnati, O.
Asbestos Fibre Spinning Co. (Asbestos packings, etc.), North Walls, Pa.
Asbestos Products Co. (Asbestos goods), 2100 Fullerton Ave., Chicago, Ill.
Asbestos Textile Co., Inc. (Asbestos products), 475 5th Ave., New York.
Asbestos & Mineral Corp. (Crude asbestos), 1819 Broadway, New York.
Asch & Company, Inc. (Belt fasteners), 1780 Broadway, New York, N. Y.
Ash Cabinet & Manufacturing Co., The (Factory stools), 1110 E. 5th St., Dayton, O.
Ashcroft Mfg. Co., The (Boiler room specialties), Pershing Square Bldg., New York, N. Y.; Chicago.
Asheboro Wheelbarrow Co. (Wheelbarrows), Asheboro, N. C.
Ashton Valve Co. (Valves, gauges, etc.), 161 1st St., Cambridge, Mass.; 128 Liberty St., New York; 565 W. Washington Blvd., Chicago; 503 Mission St., San Francisco, Cal.
Associated Manufacturers (Gas engines), Waterloo, Iowa.
Associated Oil Co. (Oils and greases), 79 New Montgomery St., San Francisco, Cal.
Atchison Specialty Mfg. Co. (Drainage fittings, etc), 1608 Pacific Ave., Atchison, Kans.
Aten Sewage Disposal Co. (Septic tanks), 286—5th Ave., New York, N. Y.
Athol Machine & Foundry Co. (Machinists' tools), Athol, Mass.; Chicago, New York, 112 Market St., San Francisco.
Athol Pump Co. (Pumps), Athol, Mass.
Atkins, E. C. & Co. (Saws), Indianapolis, Ind.; Atlanta, Ga.; 1401 W. Washington Blvd., Chicago, Ill.; Memphis, Tenn.; Minneapolis, Minn.; New Orleans, La.; 56 Reade St., New York City; Portland, Ore.; San Francisco, Cal.; Seattle, Wash.; Vancouver, B. C. (See index to advertisement pages 7, 8 and 9.
Atkins, H. C., Mfg. Co., The (Pipe nipples), 303 Cedar St., St. Louis, Mo.
Atkinson Co., The (Plumbing brass goods), 575 Lyell Ave., Rochester, N. Y.
Atlanta Stove Works (Laundry heaters, etc.), 112 Krog St., Atlanta, Ga.
Atlantic Asbestos Co. (Asbestos Goods), 12th & Arch Sts., Philadelphia, Pa.
Atlantic Co., The (Automatic machine stops), 452 Classon Ave., Brooklyn, N. Y.
Atlantic Filter Co. (Water filters), 306 Parker Ave., Buffalo, N. Y.
Atlantic Machine Screw Co. (Screws, etc.), 48 Binford St., Boston, Mass.
Atlantic Mfg. Co. (Belting, hose, etc.), 2nd & Walnut Sts., Wilmington, Del.
Atlantic Metal Hose Co., Inc. (Metal hose), 351 West 52nd St., New York, N. Y.
Atlantic Paint Co., Inc. (Belt dressing), 185 Madison Ave., New York, N. Y.
Atlantic Screw Works, Inc. (Brass screws), 85 Charter Oak Ave., Hartford, Conn.
Atlantic Tubing Co. (Steel tubing, etc.), 1756 Cranston St., Providence, R. I.
Atlas Ball Co., 165 Broadway, New York (Alloy steel), distributed by S. K. F. Industries.

Atlas Bolt & Screw Co. (Bolts, screws, nuts, etc.), 1130 Ivanhoe Rd., N. E., Cleveland, O.; Detroit; St. Louis; Chicago; Philadelphia.
Atlas Brass Foundry Co. (Oil pumps), 980 Park St., Columbus, O.
Atlas Car & Mfg. Co. (Factory trucks), 1100 Ivanhoe Road, Cleveland, O.
Atlas-Chicago Company (Overhead conveyors), 740 W. Van Buren St., Chicago, Ill.
Atlas Copper & Brass Mfg. Co. (Coppersmiths), 2734 High St., Chicago, Ill.
Atlas Engineering Co. (Concrete mixers), 3038 Galena St., Milwaukee, Wis.
Atlas Foundry Co. (Welding rods), Lyons Ave. & L. V. R. R., Irvington, N. J.
Atlas Machine Co., The (Power presses and metal working machines), 140 Manhan St., Waterbury, Conn.
Atlas Mfg. Co. (Woodworking machinery), Orlando, Fla.
Atlas Mfg. Co. (Brass lavatory fittings), 125 Water St., New Haven, Conn.
Atlas Mineral Products Co. (Asbestos products), 710-712 Hamilton St., Allentown, Pa.
Atlas Oil Burner Co. (Oil burners), 5812 Broadway, Chicago, Ill.
Atlas Powder Co. (Gunpowder), Delaware Trust Bldg., Wilmington, Del. Branches in principal cities.
Atlas Press Co. (Hand presses), Kalamazoo, Mich.
Atlas Shear Co., The (Scissors and shears), 230 North Ave., Bridgeport, Conn.
Atlas Steel Corp., The (Steel mill products), Dunkirk, N. Y.
Atlas Tack Corp. (Tacks, nails, rivets), Fairhaven, Mass.; 140 Nassau St., New York, N. Y.
Atlas Torch Mfg. Co. (Blow torches), 1909 Irving Park Blvd., Chicago, Ill.
Atlas Valve Company, Inc. (Reducing valves), 282 South St., Newark, N. J.
Atlas Wash Tray Co. (Sinks), New Haven, Conn.
Atmospheric Conditioning Corp. (Air washing apparatus), Land Title Bldg., Philadelphia, Pa.; 1301 Monadnock Block, Chicago, Ill.
Atwood & Morrill (Steam specialties), 48 Loring Ave., Salem, Mass.
Aubeuf, F. J., Co., Inc. (Hand carts), Oneida, N. Y.
Auburn Ball Bearing Co. (Ball bearings), 21-35 Elizabeth St., Rochester, N. Y.
Auburn Handle Co. (Tool handles), Auburn, Ind.
Auburn Leather Goods Co. (Leather packings), 32 Union Pl., Hartford, Conn.
Auclo Company, The (Furnace clocks), 972 Broad St., Newark, N. J.
Audiffren Refrigerating Machine Co. (Drinking fountains), 90 West St., New York, N. Y.
Augustine Automatic Rotary Engine Co. (Steam engines), 1862 Elmwood Ave., Buffalo, N. Y.
Aurora Door Hanger & Specialty Co. (Door hangers, etc.), Aurora, Ill.
Aurora Pump Company (Deep well pumps), Aurora, Ill.; 37 W. Van Buren St., Chicago, Ill.
Aurora Steel Products Co. (Steel lockers), Aurora, Ill.
Aurora Tool Works, The (Upright drills), Aurora, Ind.
Austin Powder Co. (Explosives), Union Trust Bldg., Cleveland, O.
Austin & Eddy (Woodworking mach'y), 115 Broad St., Boston, Mass.
Auto Compressor Co., The (Air compressors), 233 So. Mulberry St., Wilmington, O.
Automatic Buffing Machine Co. (Buffing machine), 222 Chicago St., Buffalo, N. Y.
Automatic Burner Corp. (Fuel oil burners), 312 No. May St., Chicago, Ill.
Automatic Electric Heater Co. (Electric heating appliances), 1505 Race St., Philadelphia, Pa.
Automatic Electric Pump Co. (Air pumps), 1831 Rockingham Rd., Davenport, Ia.
Automatic Furnace Co. (Grates, stokers, etc.), First and Harshman Sts., Dayton, O.
Automatic Gas-Steam Radiator Co. (Radiators, etc.), Fulton Bldg., Pittsburgh, Pa.
Automatic Machine Co., The (Metalworking machinery), 113 E. Washington St., Bridgeport, Conn.
Automatic Primer Co., The (Pump primers), 111 W. Washington St., Chicago, Ill.
Automatic Sprinkler Co. of America (Automatic sprinklers), 123-133 William St., New York, N. Y., branches in principal cities.
Automatic Transportation Co. (Factory trucks), 2933 Main St., Buffalo, N. Y.; branch offices in principal cities.
Automatic Vacuum Pump Co. (Vacuum Pumps), 1901 So. Western Ave., Chicago, Ill.
Automatic Weighing Machine Co. (Weighing machines), 138 Commerce St., Newark, N. J.
Autoquip Mfg. Co., Inc. (Plumbers' force pumps), 495 St. Paul St., Rochester, N. Y.
Autovent Fan & Blower Co. (Fans & blowers), 730 W. Monroe St., Chicago; branches in principal cities.
Autoyre Co., The (Bathroom accessories), Main St., Oakville, Conn.
Avey Drilling Machine Co. (Drilling machines), 25 East 3d St., Covington, Ky.; Cincinnati, O.
Axelson Machine Co. (Oil pumps), 6100 So. Boyle Ave., Los Angeles, Cal.
Axtell Co. (Drilling and pumping mach'y), 8th & Grove St., Ft. Worth, Tex.
Ayling & Reichert Co. (Copper floats, etc.), 3041 N. Erie St., Toledo, O.
Azor Motor Mfg. Co., The (Motors and grinders), 7424 Bessemer Ave., Cleveland, O.

B.

B. B. Specialty Co. (Shovel grips), 411 6th Ave., So., Minneapolis, Minn.
B. B. Specialty Co. (Plumbers' tools, etc.), 433 Liberty Ave., Pittsburgh, Pa.
B & F Mfg. Co., Inc. (Cast iron drainage fittings), 2018 Massachusetts Ave., Indianapolis, Ind.
B. & M. Vent. Co. (Air vents), 212 N. 2nd St., Philadelphia, Pa.
B. O. T. Mfg. Co. (Vitreous plumbing ware), New York Ave., Trenton, N. J.
B R E Mfg. Co. (Plumbers' woodwork), Hyde Park, Boston, Mass.
Babbitt, B. T. (Porcelain cleaner), 15 West 34th St., New York, N. Y.
Babbitt Steam Specialty Co. (Valve wheels), Water, Spring and First Sts., New Bedford, Mass.
Babcock, W. W., Co. (Ladders), Bath, N. Y.
Babcock & Wilcox Co. (Power boilers), 85 Liberty St., New York, N. Y.; Atlanta; Boston; Cleveland; Cincinnati; Denver; Houston; Los Angeles; Philadelphia; Pittsburg; Salt Lake City; San Francisco; Seattle; Tucson; Detroit; Ft. Worth; New Orleans.
Bacharach Industrial Instrument Co. (Industrial instruments), 7000 Bennett St., Homewood Sta., Pittsburgh, Pa.; 15 Park Row, New York.
Bache, Semon, Co. (Gage and lubricator glasses), Greenwich and Morton Sts., New York, N. Y. (See index to advertisement, pages 7, 8 and 9.)
Bachmann Bros. (Water heaters, etc.), 711 Indiana Ave., LaPorte, Ind.
Bachmann, J., & Co. (Leather belting), 203 Lafayette St., New York, N. Y.
Backus Water Motor Co. (Gas engines, water motors, etc.), 172-82 Pennsylvania Ave., Newark, N. J., Philadelphia.
Baco Electric Co. (Soldering irons), Bode, Iowa.
Bacon Heater Mfg. Co., The (Heating boilers), 2622 Franklin Blvd., Cleveland, O.
Badenhausen Corporation (Power boilers, etc.), Cornwells Heights, Pa.
Badger Concrete Mixer Co. (Mixers, concrete), 221 Grand Ave., Milwaukee, Wis.
Badger, E. B., & Sons Co. (Copper boilers, joints, kettles, etc.), 63-75 Pitts St., Boston, Mass.; 101 Park Ave., New York; 352 E. 22nd St., Chicago.
Badger Fire Extinguisher Co., Inc. (Fire extinguishers), 31 St. James Ave., Boston 14, Mass.; 123 William St., New York; 424 Howard St., San Francisco.
Badger Meter Mfg. Co. (Water meters), 841-63 30th St., Milwaukee, Wis.; 111 Wash. St., Chicago; Chamber of Commerce, Brooklyn; 414 Interstate Bldg., Kansas City, Mo.
Badger Tool Co. (Grinders), Beloit, Wis.
Baeder Adamson Company (Abrasive paper and cloth), Allegheny Ave. and Richmond St., Philadelphia, Pa.; New York; Chicago; Boston.
Bailey & Blendinger Mfg. Co. (Machine knives), Woburn, Mass.
Bailey-Farrell Mfg. Co. (Lead burning machines, So. 20th & Sidney Sts., Pittsburgh, Pa.; Huntington, W. Va.
Bailey, Frederic T., & Co. (Bench legs), North Scituate, Mass.
Bailey Meter Company (Meters, etc.), 2009 E. 46th St., Cleveland, Ohio.
Baird Machine Co., The (Power presses and mach'y), 940 Stratford Ave., Bridgeport, Conn.
Baird Pneumatic Tool Co. (Pneumatic drills), 432 Rialto Bldg., Kansas City, Mo. Branches in principal cities.
Baker Bros. (Metal working mach'y), Post and Westlake Sts., Toledo, O.
Baker, G. W., Machine Co. (Leather working mach'y), 218 French St., Wilmington, Del.
Baker Lead Mfg. Co. (Lead pipe), 28 Cherry St., Worcester, Mass.
Baker Mfg. Co. (Windmills, pumps, etc.) Evansville, Wis.; Ft. Dodge; Cedar Rapids; Omaha; Minneapolis; Alameda, Cal.; Kansas City, Mo.; Oakland, Calif.
Baker Paint & Varnish Co. (Paints, oils, greases), 218-232 Suydam Ave., Jersey City, N. J.
Baker-Raulang Company, The (Trucks, cranes, etc.) W. 80th St. & N. Y. C. R. R., Cleveland, O.; Central Park West, New York, N. Y.

Baker, S. D., Corp. (Bathroom accessories), 236 W. 14th St., New York, N. Y.
Baldor Electric Co. (Electric motors), 4351-53 Duncan Ave., Saint Louis, Mo.
Baldwin Belting & Leather Co., Inc. (Leather belting), 69 Warren St., New York, N. Y.
Baldwin Tool Works (Scoops, spades and shovels), Parkersburg, W. Va.; Woolworth Bldg., New York.
Ball Engine Co. (Steam engines), 12th & Cranberr. Sts., Erie, Pa.; Board of Trade Bldg., Boston; 39 Cortlandt St., New York; 53 W. Jackson Blvd., Chicago; 1001 Arcade Bldg., Philadelphia; 520 Victoria Bldg., St. Louis; Empire Bldg., Atlanta; Mer. Library Bldg., Cincinnati.
Ballantine, Benjamin D. (Pipe nipples), 10 Main St., Fitchburg, Mass.
Balmer Co., J. H. (Bathroom fittings), 265 Plane St., Newark, N. J.
Baltimore Belting Co. (Leather belting), 23-25 South Gay St., Baltimore, Md.; Spartanburg, S. C.
Baltimore Chemical Co. (Soldering flux), 1901 Park Ave., Baltimore, Md.
Baltimore Cooperage Co., The (Water supply systems), Leadenhall and Ostend Sts., Baltimore, Md.
Baltimore Engine Co. (Steam engines), 221 No. Calvert St., Baltimore, Md.
Baltimore Gas Appliance & Mfg. Co., The (Laundry heaters, etc.), Bayard & Hamburg Sts., Baltimore, Md.
Baltimore Pipe & Nipple Co. (Pipe nipples), 104-106 McPhail St., Baltimore, Md.
Baltimore Tube Co. (Brass bronze tubes and sheets), 1301 Wicomico St., Baltimore, Md.
Baltimore Valve Corp. (Cocks and valves), Sinclair Lane & Patterson Park Ave.), Baltimore, Md.
Bancroft Belting Co., The (Leather belting), 145 High St., Boston, Mass.
Bangor Structural Slate Co. (Plumbing slate), Bangor, Pa.
Banner Manufacturing Co. (Faucets, etc.), 109 Lafayette St., New York, N. Y.
Banning, W. E., Stamp & Stencil Works, Inc. (Metal stamps), Clinton and Water Sts., Syracuse, N. Y.
Bantam Ball Bearing Co. (Ball bearings), Bantam, Conn.; 905 Dime Bank Bldg., Detroit; 1030 Polk St., San Francisco.
Barber Asphalt Co., The (Roofing), 30th & Race Sts., Philadelphia, Pa.; Chicago; Kansas City; New York; St. Louis; Pittsburgh; Atlanta; San Francisco.
Barber-Colman Company (Metal working machines), Rockford, Ill.; Boston; Chicago; Cleveland; Dayton; Detroit; Milwaukee; New York.
Barber-Greene Co. (Conveyors and loaders), Aurora, Ill.
Barber Mfg. Co. (Cast iron plumbing goods), Ashtabula, O.
Barcalo Mfg. Co. (Wrenches), 225 Louisiana St., Buffalo, N. Y.
Barco Mfg. Co. (Flexible joints), 1801 Winnemac Ave., Chicago, Ill.
Bard Mfg. Co. (Screw machine products), Royersford, Pa.
Bard Union Co., Inc., The (Pipe unions), 103 Chestnut St., Norwich, Conn.
Bardons & Oliver (Turret lathes), 1133 W. 9th St., Cleveland, O.; 627 Washington Blvd., Chicago, Ill.; 19 W. Woodbridge St., Detroit, Mich.
Bareham & Saunders (Plumbers' price books), 366 E. Main St., Rochester, N. Y.
Barker Factory, Inc., The (Water heaters), Norwalk, Conn.
Barker, Wm. & Co. (Engine lathes), Wheeler & Pleasant Sts., Covington, Ky.
Barlow Bros. (Leather belting), 543 N. 64th St., Philadelphia, Pa.
Barnard, Chas. A., Machine Co. (Woodworking machinery), 210 Main St. Gardner, Mass.
Barnes Drill Co. (Metal working mach'y), 814-830 Chestnut St., Rockford, Ill.
Barnes, Henry K., Co. (Leather belting), 234-236 Devonshire St., Boston, Mass.
Barnes Mfg. Co., The (Pumps), Mansfield, O.
Barnes Tool Co., The (Pipe cutters and wheels), 152 Brewery St., New Haven, Conn.; 38 Vesey St., New York.
Barnes, W. F. and John, Co. (Drilling machines), 301 So. Water St., Rockford, Ill.
Barnes, W. O., Co., Inc. (Saws), 1297 Terminal Ave., Detroit, Mich. (See index to advertisement, pages 7, 8 and 9.)
Barnett Foundry & Machine Co. (Vises), Lyons Ave. and Coit St., Irvington, N. J.
Barnett, G. & H., Co. (Files), 1076 Frankford Ave., Philadelphia, Pa.
Barney Ventilating Fan Works (Fans), 25 Haverhill St., Boston, Mass.
Barnum Bros. Co. (Leather belting), 179 River St., Troy, N. Y.
Barr, H. Edsil (Pneumatic hammers), Erie, Pa.
Barrett Company, The (Roof coverings), 40 Rector St., New York, N. Y.
Barrett-Cravens Co. (Factory trucks), 1328 W. Monroe St., Chicago, Ill.; 51 E. 42nd St., New York, N. Y.
Barrett, Haentjens & Co. (Pump primers), Hazleton, Pa.
Barrett, James, Mfg. Co. (Drainage fittings), 115-121 Pearl St., Boston, Mass.
Barrett, Leon J. (Centrifugal separators), Box 44, Worcester, Mass.
Barrett Machine Tool Co. (Vises), Meadville, Pa.
Barrett Sales Co., The (Expansion bolts, etc.), 568 W. Washington Blvd., Chicago, Ill.; New York, Los Angeles, St. Louis, San Francisco.
Barrett, W. L. (glass cutters), 30 School St., Bristol, Conn.
Barry Co. (Steel pulleys, etc.) Muscatine, Iowa.
Barshal Company, The (Steel shelves, lockers, etc.), Bulkley Bldg., Cleveland, O.; 307 Boyd Park Bldg., Salt Lake City; 134 Spring St., San Francisco.
Barstow Stove Co. (Laundry stoves), 116 Point St., Providence, R. I.
Bartlett, A. F., & Co. (Engines, boilers, mach'y), 930 So. Water St., Saginaw, Mich.
Bartlett, Edwin E. (Metal working mach'y), 41 Crown St., Nashua, N. H.
Bartlett, G. M. (Shaft couplings), 2533 College Ave., Indianapolis, Ind.
Bartlett Mfg. Co. (Tinners' snips), 428 East Lafayette St., Detroit, Mich.
Bartlett-Hayward Co. (Flexible shaft couplings), Scott and McHenry Sts., Baltimore, Md.; New York.
Bartlett, C. O., & Snow (Material handling equipment), 6450 Harvard Ave., Cleveland, Ohio.
Bartley, Jonathan, Crucible Co. (Crucibles and retorts), Trenton, N. J.; 617 Filbert St., Philadelphia.
Bartley, R. C., Co., The (Heating boilers), Bartley, N. J.
Bartley, Wm., & Sons (Sawmill mach'y), Bartley, N. J.
Barton, H. H., & Son. Co., (Abrasive papers), State Road, Philadelphia, Pa.
Barwood, L. J., Mfg. Co., The (Packings and washers), 43 Pine St., Stoneham, Mass.
Barwood, V. H., Mfg. Co. (Washers, gaskets, packings), 297 Congress St., Boston, Mass.
Bashlin Co., The (Brass cocks and valves), Warren, Pa.
Basic Mineral Co., The (Foundry flux), 834 Columbus St., Pittsburgh, N. S., Pa.
Bass Bros. (Woodworking mach'y guards), 375 Rider Ave., New York, N. Y.
Bass Foundry & Machine Co. (Engines, boilers, heaters, etc.), Fort Wayne, Ind.
Bassick Company, The (Hardware), 38 Austin St., Bridgeport, Conn.; New York, Chicago, Detroit.
Bassick Mfg. Co., The (Lubricators), 2638 No. Crawford Ave., Chicago, Ill.
Bastian-Blessing Co. (Brass founders and finishers), 240 E. Ontario St., Chicago, Ill.
Bastian, W. B., Mfg. Co. (Water heaters), 2117 Violet St., Los Angeles, Cal.
Bastian-Morley Co. (Gas water heaters), Laporte, Ind.
Batavia Clamp Co. (Clamps and jacks), Batavia, N. Y.
Bate Boiler Efficiency Co. (Flue cleaners), Conshohocken, Pa.
Bates, Edw. P., Co., Inc. (Steam specialties), 228 West Water St., Syracuse, N. Y.; 216 Pearl St., Utica, N. Y.
Bates Manufacturing Co., The (Numbering machines, hand punches), 33 North Day St., Orange, N. J.
Bates Motorcraft Co. (Bench saws), 28 No. Clinton St., Chicago, Ill.
Bath, John, & Co., Inc. (Machine tools), 8 Grafton St., Worcester, Mass.
Bauer, A. E. & Son, (Wood trimmers), 1342 W. 69th St., Chicago.
Bauer & Pease (Saw machinery), 314 Douglas St., N. W., Grand Rapids, Mich.
Baum's Castorine Co. (Greases, oils, polishes), Rome, N. Y.
Bausch & Lomb Optical Company (Diamond point tools), 660 St. Paul St., Rochester, N. Y.
Baush Machine Tool Co., (Metal working mach'y), 156 Wason Ave., Springfield, Mass.
Bay City Iron Co. (Boilers and tanks), First & Madison Ave., Bay City, Mich.
Bay Ridge Specialty Co., Inc. (Bathroom fixtures), 682 Stokes Ave., Trenton, N. J.
Bay State Belting Co. (Leather belting), 349 Congress St., Boston, Mass.
Bay State Emery Wheel Co. (Grinding wheels), 3 Winter St., Worcester, Mass.
Bay State Saw & Tool Mfg. Co., Inc. (Hack saws), Lake St., Winchester, Mass.
Bay State Stamping Co. (Stamped metal goods), 380 Chandler St., Worcester, Mass.

Bay State Tap & Die Co., The (Taps, dies, reamers), Mansfield, Mass.
Bayard, M. L., & Co. (Engine governors), 20th St. and Indiana Ave., Philadelphia, Pa.
Bayer Co., The (Valves, blowers, etc.), 4067 Park Ave., St. Louis, Mo.
Bayerson Oil Works (Lubricating oils), E. 12th St. and P. & E. R. R., Erie, Pa.
Bayley Mfg. Co. (Steam engines, blowers), 732-766 Greenbush St., Milwaukee, Wis.; 1156 1st Nat'l Bk. Bldg., Chicago, Ill.; Engineers Bldg., Cleveland, O.
Baylis Sanitary Supply Co. (Wiping cloths), 341 West Superior St., Chicago, Ill.
Beach Mfg. Co. (Woodworking mach'y), Montrose, Pa.
Beach Mfg. Co. (Boiler grates), Charlotte, Mich.
Beach-Russ Co. (Blowers, pumps, compressors), 30 Church St., New York, N. Y.; Chicago, Philadelphia, Baltimore, Buffalo, Boston, Los Angeles.
Beach, H. B., & Son (Steam boilers), 135 Grove St., Hartford, Conn.
Bead Chain Mfg. Co. (Bead chain), Bridgeport, Conn.
Beall Bros. (Shovels, picks, hoes), Alton, Ill.
Bearium Bearings, Inc. (Bronze bars), 88 Pearl St., Boston, Mass.
Beaton & Cadwell Mfg. Co., The (Floor and ceiling plates), 185 Main St., New Britain, Conn.; 234 Water St., New York.
Beaton & Corbin Mfg. Co., The (Floor and ceiling plates), 328 Main St., Southington, Conn. (See index to advertisement, pages 7, 8 and 9.)
Beatty Machine & Mfg. Co. (Punching presses), Hammond, Ind.
Beaudry, T. Joseph & Son, (Tools), Marlboro, Mass.
Beaumont Iron Works Co. (Well drillers), P. O. Box 926, Beaumont, Tex.
Beaumont, R. H., Co., Inc. (Coal conveyors), 321 Arch St., Philadelphia, Pa.
Beaumont Foundry & Machine Works (Fire hydrants), 126 Washington Ave., Kankakee, Ill.
Beck, Arthur, Co. (Closet bowl cleaner), 4743 Bernard St., Chicago, Ill.
Beck Mfg. Co. (Pump oilers), 314 Iowa St., Sioux City, Iowa.
Beck, Oscar, & Co. (Thermometers), 280 Maujer St., Brooklyn, N. Y.
Beck, Wm. & Chas., Co. (Linen hose), 83 Holly St., Lawrence, Mass.
Becker Mfg. Co. (W. C. seats and tanks), Marietta, Ohio.
Beckley Perforating Co. (Screens), Garwood, N. J.
Bedford Foundry & Machine Co. (Traveling cranes), Bedford, Ind.; New York.
Beers Thermostat Service (Thermostats), 1168 Portland Ave., Rochester, N. Y.
Beggs Engineering Co., The (Flush valves), 142 Russ St., Hartford, Conn.
Beggs, James, & Co. (Boilers, filters, etc.), 36 Warren St., New York, N. Y.
Behr, Herman, & Co., Inc. (Abrasives), 31-63 Tiffany Pl., Brooklyn, N. Y.; Boston; Chicago; Grand Rapids; San Francisco; St. Louis; Montreal; Toronto.
Behringer, E., Sheet Metal Works, Inc. (Water heaters), 108 Jabez St., Newark, N. J.
Behringer, Edward A., Inc. (Pipe cutters and danger signs), 98 Park Place, New York, N. Y.
Beilman Water Heater Co., Inc., The (Water heaters), 448 Niagara St., Buffalo, N. Y.
Beisser Key Machine Co. (Key making machines), 7 West Elizabeth St., Detroit, Mich.
Belden Machine Co., The (Wrenches, nail pullers), Whalley & West Rock Ave., New Haven, Conn.
Belfield, H., Co. (Steam specialties), 435 N. Broad St., Philadelphia, Pa.
Belknap Mfg. Co., The (Steam-gas-water brass goods), 800 Union Ave., Bridgeport, Conn.; Chicago.
Bell, David Company, Inc., The (Screw machine products), 1555-59 Fillmore Ave., Buffalo, N. Y.
Bell Electric Motor Co. (Motors and dynamos), 136 Liberty St., New York, N. Y.
Bell Grease Trap Co. (Grease traps), 328 Chestnut St., Philadelphia, Pa.
Bell Pump & Mfg. Co., The (Tire pumps, etc.), 534 Fort St., East, Detroit, Mich.
Bell & Gossett Co. (Case hardening compounds), 3002 Wallace St., Chicago, Ill.
Bell Machine Co., The (Woodworking machinery), Oshkosh, Wis.
Bell Specialty Co. (Roof flashing), 510 W. 12th St., Des Moines, Iowa.
Bellefleur, A. C., & Son Co. (Twist drills), 81 Hamilton St., New London, Conn.
Belleville Stove & Range Co. (Jackscrews, laundry stoves), Belleville, Ill.
Bellevue Furnace Co. (Gas furnaces), 2971 Bellevue Ave., Detroit, Mich.
Bellmark Co., The (Plumbers' pottery ware), New York Ave., Trenton, N. J.
Belmont Packing & Rubber Co. (Packings), 1133 Arch St., Philadelphia, Pa.; 99 Chambers St., New York; 172 N. Franklin St., Chicago.
Belmont Smelting & Refining Works, Inc. (Metals), 330 Belmont Ave., Brooklyn, N. Y.
Bemis & Call Company (Small tools), 983 So. Main St., Springfield, Mass.
Bench Machine Tool Co., The (Bench machines), Philadelphia, Pa.
Beneke Mfg. Co., (Plumbing brass and woodwork), 2559 W. 21st St., Chicago, Ill.
Benjamin Electric Mfg. Co. (Sirens), 120 So. Sangamon St., Chicago, Ill.
Bennett Brass Co. (Plumbing brass goods), Greenville, Mich.
Bennett Bros. Co. (Tanks), Lowell, Mass.
Bennett-McGuire Belting Co. (Leather belting), 3109 N. 9th St., St. Louis, Mo.
Bennett Mfg. Co. (Steel cabinets), Alden, N. Y.
Bennett Metal Treating Co. (Hardening compound), New Britain Ave., Hartford, Conn.
Bennett, W. R., Co. (Metal treating furnaces), 19 Elm St., Hartford, Conn.
Bennington Scale Mfg. Co. (Scales), Bennington, Vt.; New York, Boston, Chicago.
Benson, Alexander R., Co., Inc. (Soldering materials), Hudson, N. Y.
Berger Bros. Co. (Tinners' and roofers' supplies) 229-237 Arch St., Philadelphia, Pa.
Berger, L. D., Co. (Pipe hangers), 59 No. 2nd St., Philadelphia, Pa.
Berger Mfg. Co. (Sheet metal products), 1038 Belden Ave., N. E., Canton, O.
Berglas, M. P., Mfg. Co. (W. C. seats and tanks), 10 Fulton St., Brooklyn, N. Y.
Bergman Tool Mfg. Co. (Small tools), 1573-75 Niagara St., Buffalo, N. Y.
Berkshire Heater Co. (Water heaters), 30 South St., Pittsfield, Mass.
Bernhard Boiler Mfg. Co. (Heating boilers), Lima, O.
Bernz Co., Otto (Plumbers' tools), 17-37 Ashland St., Newark, N. J.; 38 Vesey St., New York; San Francisco.
Berry, A. Hun., Fan Co. (Exhaust fans), 28 Binford St., Boston, Mass.
Berry Engineering Co., The (Steam boilers and specialties), Chester, Pa.; New York.
Bertsch & Co. (Punching machines), Cambridge City, Ind.
Besaw Manufacturing Co. (Sink flushers), Reedley, Cal.
Besly, Charles H., & Co. (Machinists' tools and machines), 118 N. Clinton St., Chicago, Ill.
Bessemer Gas Engine Co., The (Engines, pumps and compressors), Grove City, Pa.
Best Pulley Mfg. Co. (Paper pulleys), 407 Talcott Ave., St. Louis, Mo.
Bessemer Soil Pipe Co. (Pipe and fittings), Bessemer, Ala.
Best, W. N., Corp. (Oil burners and furnaces), 11 Broadway, New York.
Bethel Player Co., The (Lapping machines, etc.), Westboro, Mass.
Bethlehem Steel Co. (Steel mill products), Bethlehem, Pa.; New York; Philadelphia; Pittsburgh; Cleveland; Baltimore; Atlanta; Detroit; St. Louis; Chicago; San Francisco.
Betcher Stamping & Mfg. Co., The (Metal stampings), 3106 W. 61st St., Cleveland, O. (See index to advertisement, pages 7, 8 and 9.)
Bettes, A. O., Mfg. Co. (Metal polish), 1008 Union Ave., Kansas City, Mo.
Betton, J. M. (Sand blast machines), 154 Ogden Ave., Jersey City, N. J.
Betz, Frank S., Co. (Steel shelving), Hammond, Ind.
Biax Flexible Shaft Co. (Flexible shafts and machines), 20 East 17th St., New York, N. Y.
Bickford, H., & Co. (Metal working machines), Lakeport, N. H.
Bickford Manufacturing Co., The (Water closet seats), Greenfield, Mass.
Bickford & Francis Belting Co. (Leather belting), 35 Pearl St., Buffalo, N. Y.
Bicknell-Thomas Co. (Tapping machines, etc.), Greenfield, Mass.
Biddle, James G. (Tachometers), 1211-13 Arch St., Philadelphia, Pa.
Biehl Iron Works, Inc. The (cars, trucks, etc.) 222 So. 2nd St., Reading, Pa.
Bigelow Co. (steam boilers), 76 River St., New Haven, Conn.
Biggar Brothers (Loose pulley oilers), Oneida, N. Y.
Biggs Boiler Works Co., The (Steel tanks), 1111 William St., East Akron, O.
Bignall Co., The (Iron plumbing goods), 621 Main St., Medina, N. Y.
Bignall & Keeler Machine Works (Pipe threading machines), Edwardsville, Ill.
Bigsby Metals, Co., The (Babbitt metals), East Chicago, Ind.
Bi-Lateral Fire Hose Co. (Hose), 230 W. Randolph St., Chicago, Ill.
Billingham Brass Co. (Plumbing brass goods), 123 So. Clinton St., Trenton, N. J.

Billings & Spencer Co., The (Small tools), Park & Laurel Sts., Hartford, Conn.
Billstrom, Nels J. (Woodworking mach'y), 2002 9th St., Rockford, Ill.
Bilton Machine Tool Co. (Slitting & drilling machines), 990 Housatonic Ave., Bridgeport, Conn.
Bilt-Rite Equipment Co. (Drilling machinery), 98 Beacon St., Worcester, Mass.
Binder, John F. (Range boilers and heaters), 190 No. La Salle St., Chicago, Ill.
Bingham & Taylor (Sewer castings), 218 Ellicott Sq., Buffalo, N. Y.
Binghamton Boiler Compound Co (Boiler compounds), 330 Water St., Binghamton, N. Y.
Binghamton Flexible Shaft Co. (Flexible shafting), 239 Water St., Binghamton, N. Y.
Binks Spray Equipment Co. (Painting machines, vehicle washers), 3114-28 Carroll Ave., Chicago, Ill.
Binney & Smith Co. (Industrial crayons), 41 E. 42d St., New York.
Birch Manufacturing Co. (Valves), 1521-1523 Sedgwick St., Chicago, Ill.
Birchfield Boiler Co. (Heating boilers), 2503 E. 11th St., Tacoma, Wash.
Bird-Archer Co., The (Boiler compounds), 33 Rector St., New York, N. Y.
Birdsall, W. A., & Co. (Heating boilers), 44-48 Mechanic St., Newark, N. J.
Birdsboro Steel Foundry & Machine Co. (Belt lacing machines), Birdsboro, Pa.
Birkenstein, S., & Sons, Inc. (Foundry equipment), 1056 W. North Ave., Chicago, Ill.; Times Bldg., New York; 25th and Ellsworth Sts., Philadelphia; Temple Court Bldg., Minneapolis, Minn.
Birkle Machine Works (Cast-iron pulleys), 456 No. Union Ave., Chicago, Ill.
Birmingham Iron Foundry (Speed reducers), Derby, Conn.
Birmingham Machine & Foundry Co. (Cast iron pipe), 3700 10th Ave., Birmingham, Ala.; 16 Exchange Place, New York; 730 Peoples Gas Bldg., Chicago; P. O. Box 697, Sta. C., Los Angeles.
Bishop & Babcock Mfg. Co. (Brass goods), E. 49th & Hamilton Sts., Cleveland, O.; 376-380 Lafayette St., New York; Cincinnati, Chicago, Milwaukee, St. Paul, Dallas, Detroit, Pittsburgh, St. Louis, Denver, Atlanta, San Francisco.
Bishop, Robert, Mfg. Co. (Cotton waste), 157 W. 6th St., Boston, Mass.
Bissell Co. (Sewer rods), 810 Lafayette St., Toledo, O.
Black Bear Co., The (Boiler compounds), 138-142 Temple St., Long Island City, N. Y.
Black Belt Corporation (Belting), Jamestown, N. Y.
Black Bros. Co., The (Woodworking mach'y), Mendota, Ill.
Black & Decker Mfg. Co., The (Electrical machinery), Towson, Md.; 209 Massachusetts Ave., Boston; 461 Eighth Ave., New York; 318 N. Broad St., Philadelphia; General Motors Bldg., Detroit; 2030 E. 22nd St., Cleveland; 1436 S. Michigan Ave., Chicago; 75 Fremont St., San Francisco; 209 E. 18th St., Kansas City, Mo.; 344 St. James St., Montreal.
Black Diamond Saw & Machine Works (Saws and saw tools), Natick, Mass.
Black Diamond Spad Co. (Miners' spads), Box 414, Richmond, Va.
Blackburn-Smith Corp., The (Feed water filters), 25 West 45th St., New York.
Blacker Engineering Co., Inc. (Power hammers), Grand Central Terminal, New York, N. Y.
Blackhawk Mfg. Co. (Grinders and wrenches), Milwaukee, Wis.
Blackmer Rotary Pump Co. (Rotary pumps), Grand Rapids, Mich; Chicago, Detroit, Houston, Kansas City, Minneapolis, New York, Philadelphia, San Francisco, Pittsburgh.
Blackwood Plumbing Supply Co. (Closet bends), Pontiac, Mich.
Blair Products Co. (Pipe clamps), 260 W. 29th St., New York, N. Y.
Blake & Johnson Co., The (Rivets, screws, etc.), 173 No. Elm St., Waterbury, Conn.
Blake Pump & Condenser Co. (Pumps), Fitchburg, Mass.
Blake Specialty Co. (Plumbing specialties), 1600 Mill St., Rock Island Ill.
Blakeley, John, & Son (Wiping cloths), 1089 Germantown Ave., Philadelphia, Pa.
Blakeslee Mfg. Co. (Steam pumps, etc.), 30 Duquoin St., Duquoin, Ill. (See index to advertisements, pages 7, 8 and 9.)
Blanchard Machine Co., The (Grinders), 64 State St., Cambridge, Mass.
Blandin Co., Inc. (Leather belting), 313 Methuen St., Lawrence, Mass.
Blatchford, E. W., Co. (Lead products), 230 N. Clinton St., Chicago, Ill.
Blaw Knox Co. (Contractors' equipment), Pittsburgh, Pa.
Blettner, George H., Co. (Reaming machine), 184; W. Jackson Blvd., Chicago, Ill.
Bliss, E. W., Co. (Sheet metal working mach'y), 53rd and 2nd Ave., Brooklyn, N. Y.; New Haven, Detroit, Cleveland, Chicago, Pittsburgh, St. Louis, Buffalo, Cincinnati.
Bliss & Laughlin, Inc. (Steel shafting, etc.), Harvey, Ill.
Blodgett, The G. S., Co., Inc. (Core ovens), Burlington, Vt.
Blood Brothers Machine Co. (machine joints), Allegan, Mich.
Blount, J. G., Co. (Lathes and grinders), Everett, Mass.
Blue Ball Machine Works (Pumps, saws, etc.), Blue Ball, Pa.
Blue Seal Chemical Co. (Pipe cleaning compounds, etc.), 126 Locust St., Roselle, N. J.
Blumenthal, H., & Co. (Wire brushes), 241 Centre St., New York, N. Y.
Boardman, Robert, Co., Ltd., The (Well drilling tools), Oil City, Pa.
Bodine Electric Co. (Motors and tools), 2254 W. Ohio St., Chicago, Ill.; Boston; New York; Philadelphia.
Boekel, Wm., & Co. (Plumbers' pumps, torches, brass goods), 509-19 Vine St., Philadelphia, Pa.
Boettiger, Christ W. (Pipe joint paste), 2316 Peach St., Erie, Pa.
Boice, W. B. & J. E. (Woodworking mach'y), 1730-32 Norwood Ave., Toledo, O.
Boiler-Kote Co., The (Boiler compound), 228 N. La Salle St., Chicago, Ill.
Boiler Room Improvement Co. (Smoke indicators), 4057 W. Van Buren St., Chicago, Ill.
Boiler Sealtite Co. (Boiler compound), 239 E. 63rd St., Chicago, Ill.
Boiler Tube Company of America (Boiler tubes), 1228 Park Bldg., Pittsburgh, Pa.; New York; Chicago.
Boker Cutlery & Hardware Co. (Machinists' tools), 101-103 Duane St., New York.
Boker, H., & Co., Inc. (Small tools), 101-103 Duane St., New York, N. Y.; Chicago; San Francisco.
Bolles, Wm. B. (Fire door hardware), P. O. Box 600 MS, Milwaukee, Wis.
Bommer Spring Hinge Co. (Closet fittings), 263 Classon Ave., Brooklyn, N. Y.
Bon Mfg. Co. (Vise jaws), Elgin, Ill.
Bonar, James, & Co. (Steam specialties), Park Bldg., Pittsburgh, Pa.
Bond, Charles, Company (Leather belting, etc.), 617-619 Arch St., Philadelphia, Pa.
Bond Foundry & Machine Co. (Power transmission mach'y), Manheim, Lancaster Co., Pa.; 617 Arch St., Philadelphia, Pa.; 256 Broadway, at 60th St., New York; Reeves-Bond Sales Co., 39 S. Clinton St., Chicago.
Bonner & Barnewall, Inc. (Leather belting), 440 Lafayette St., New York, N. Y.; Charlotte, N. C.; Detroit; Providence.
Bonney Forge & Tool Works (Vises, wrenches, etc.), Meadow & Tilghman Sts., Allentown, Pa.
Boosey, Norman, Mfg. Co. (Drainage fittings), 5140 Hamilton Ave., Detroit, Mich.
Booth Felt Co., Inc., The (Mechanical felt goods), 463-473 19th St., Brooklyn; 732 Sherman St., Chicago.
Borden Co., The (Pipe cutting and threading tools), Warren, O.; 50 Church St., New York; 66 Richmond St., Toronto.
Borden Stove Co. (Cast iron water heaters), 1026 Arch St., Philadelphia, Pa.
Bordentown Steel & Tube Corp. (Steel tubing), Bordentown, N. J.
Bordo, L. J., Co. (Steam specialties), 12th and Thompson Sts., Philadelphia, Pa.
Borgeson Mfg. Co., Inc., The (Universal joints), Torrington, Conn.
Borin Mfg. Co. (Medicine cabinets), 1325 So. Cicero Ave., Cicero, Ill.
Boss Bolt & Nut Co., 3403 W. 67th St., Chicago, Ill.
Boston Brass Co. (Brass goods), Bacon and Plympton St., Waltham, Mass.
Boston Filter Co. (Filters and coolers), 35 Broadway, Chelsea, Mass.
Boston Gear Works Sales Co. (Gears, flexible couplings, etc.), Norfolk Downs, Quincy, Mass.; 623 West Washington Blvd., Chicago.
Boston Scale & Machine Co. (Drilling plates), 100 Ruggles St., Boston, Mass.
Boston Seat & Tank Co. (Water closet seats), 452 E. Warren St., Detroit, Mich.
Boston Self-Locking Block Co. (Tackle blocks), 514 Arch St., Philadelphia, Pa.
Boston Woven Hose & Rubber Co. (Mechanical rubber goods), 29 Hampshire St., Cambridge, Mass.; New York, Chicago, Boston, Philadelphia, St. Louis, San Francisco, Pittsburgh.
Boston & Lockport Block Co. (Tackle blocks), 118 Condor St., Boston, Mass.
Botfield Refractories Co. (High temperature cement), 776 S. Swanson St., Philadelphia, Pa.
Bottum Valve Co. (Valves, etc.), 213 W. Schiller St., Chicago, Ill.

Bound Brook Oil-less Bearing Co. (Bearings and bushings), Bound Brook, N. J.; General Motors Bldg., Detroit, Mich.
Bourne Fuller Co., The (Bolts and nuts), Hanna Bldg., Cleveland, O.; Upson Wks., Unionville, Conn.; New York, Chicago, San Francisco.
Bourneuf, Louis, Corporation (Roof flanges), 213 Oxford St., Lynn, Mass.
Bousman Mfg. Co. (Oil filters), 1157-59 Plainfield Ave., Grand Rapids, Mich.
Bowen Products Corporation (Lubricating devices). Auburn, N. Y.
Bowen Products Corp., Minneapolis Division, 983 17th Ave., S. E., Minneapolis, Minn.
Bowen Products Corp., Winkley Division, 2760 W. Warren St., Detroit, Mich.
Bowen Products Corp., Cleveland Div., 7113 Euclid Ave., Cleveland, O.
Bower Roller Bearing Co. (Roller bearings), 3040 Hart, Detroit, Mich.
Bowers Pottery Co. (Vitreous plumbing ware), Mannington, W. Va.
Bowlene Mfg. Co. (Closet bowl cleaner), Canton, O.
Bowlus Mfg. Co., The (Drilling machines, water closet flushers, etc.), 600 E. Main St., Springfield, Ohio.
Bowser, S. F., & Co., Inc. (Oil storage equipment), Ft. Wayne, Ind.; Boston. Branches in principal cities.
Bowsher, N. P., Co., The (Conveyor flights, etc.), 925 Webster St., South Bend, Ind.
Box Crane & Hoist Corp. (Chain hoists), Ontario & Trenton Sts., Philadelphia, Pa.
Boyce & Veeder Co., Inc. (Fire extinguishers), Long Island City, N. Y.
Boye & Emmes Machine Tool Co., The (Engine lathes), 2245 Spring Grove Ave., Cincinnati, O.
Boyer Chemical Laboratory Co. (Boiler compounds), 2700 S. Wabash Ave., Chicago, Ill.
Boyer Fire Apparatus Company (Fire apparatus), Logansport, Ind.
Boyle, C. A., & Co., Inc. (Shower curtains and fittings), 833 W. Jackson Blvd., Chicago, Ill.
Boylston Steam Specialty Co. (Steam specialties), 116 W. Illinois St., Chicago, Ill.
Boynton Furnace Co., The (Water heaters), 58 W. 40th St., New York, N. Y.
Boynton & Plummer, Inc. (Metalworking mach'y), Chester Depot, Vt.
Boyts, Porter & Co. (Steam pumps), Connellsville, Pa.
Bradford Machine Tool Co. (Lathes), 657 Evans St., Cincinnati, O.
Bradford, Wm. A. (Plumbers' price books), 11 Maple St., Quincy, Mass.
Bradlee & Co., Inc. (Chains), 1615 No. Delaware Ave., Philadelphia, Pa.
Bradley, A. J., Mfg. Co. (Stencil ink), 101 Beekman St., New York, N. Y.
Bradley, C. C., & Son (Forges and power hammers), 432 N. Franklin St., Syracuse, N. Y.
Bradley Stencil Machine Company (Stencil cutting machines), 3745 Forest Park Blvd., Saint Louis, Mo.
Bradley Washfountain Co. (Wash fountains), 22nd & Sycamore Sts., Milwaukee, Wis.
Bradney Machine Co., Inc. (Portable cranes), Middletown, N. Y.
Bradway, C. P., Machine Works (Water wheels), West Stafford, Conn.
Brady Brass Co. (Metals), 170 14th St., Jersey City, N. J.
Brady Conveyors Corp. (Ash conveyors), 20 W. Jackson Blvd., Chicago, Ill.
Braender Cellar Drainer Co. (Cellar drainers), 315 Fourth Ave., New York, N. Y.
Braiding & Packing Works of America, Inc. (Asbestos packing) 250-252 46th St., Brooklyn, N. Y.
Brandt, Randolph (Packings), 66 Cortlandt St., New York.
Brauer Acetylene Lighting Co. (Acetylene welding equipment), Marshalltown, Ia.
Braunsdorf, Geo. W., Inc. (Felt washers), 430 E. 53rd St., New York, N. Y.
Brawley, T. R. (Felt goods), 275 20th St., Brooklyn, N. Y.
Brayman Drain Co. (Floor drains), 133 W. 52nd St., New York, N. Y.
Brazil Stamping & Mfg. Co. (Humidifiers), 3244 W. Lake St., Chicago, Ill.
Breeze Metal Hose & Mfg. Co. (Metal hose, etc.), 22-46 So. 6th St., Newark, N. J.
Bretting, C. G., Mfg. Co. (Engines, boilers, mach'y), Ashland, Wis.
Breuer Electric Mfg. Co. (Blowers), 855 Blackhawk St., Chicago, Ill. (See index to advertisement, pages 7, 8 and 9.)
Brewster, William, Co., Inc. (Metal engraving machines), 50 Church St., New York, N. Y.
Brey & Krause Mfg. Co. (Tubing, nuts, brackets, etc.), Front and Chew Sts., Allentown, Pa.
Bridge & Beach Mfg. Co. (Laundry heaters), 4204 No. Union Blvd., St. Louis, Mo.
Bridgeport Brass Co. (Brass and copper products), Bridgeport, Conn.; New York, Chicago, Philadelphia, Detroit.
Bridgeport Chain Co. (Chains), 964 Crescent Ave., Bridgeport, Conn.; 20 E. Lake St., Chicago, Ill.; Wells Fargo Bldg., San Francisco, Cal.; Dallas, Tex.
Bridgeport Hardware Mfg. Corp. (Hardware and cutlery), 461 Iranistan Ave., Bridgeport, Conn.
Bridgeport Screw Co., Bridgeport, Conn.
Bridgman Co. (Plumbing fixtures), 120 So. 30th St., Philadelphia, Pa.
Brightman Machine Co., The (Power transmission appliances), Quincy St. and C. & R. Ry., Cleveland, O.
Bristol Brass Corporation (Brass sheets, rods, etc.), Bristol, Conn.; 21 Park Row, New York.
Bristol Company, The (Recording Instruments), Waterbury, Conn.; 114 Liberty St., New York; 53 W. Jackson Blvd., Chicago; Pittsburgh; Boston; Detroit; Philadelphia; St. Louis; San Francisco; 1625 Age-Herald Bldg., Birmingham, Ala. (See index to advertisement, pages 7, 8 and 9.)
Brockton Mallet Co. (Mallets), 71 Field St., Brockton, Mass.
Broderick & Bascom Rope Co. (Wire rope), 805 No. Main St., St. Louis, Mo.; 76 Warren St., New York; Seattle.
Brohard Co., The, 3rd St. & Lehigh Ave., Philadelphia, Pa.
Bronze Metal Co. (Babbitt metal), 30 Church St., New York, N. Y.
Brooklyn Daily Eagle, Catalog Dept. (Jobbers' catalogs), 305 Washington St., Brooklyn, N. Y.
Brooklyn Leather Belting Co. (Leather belting), 81 S. 6th St., Brooklyn, N. Y.
Brooks Lawn Sprinkling System (Lawn sprinklers), 14528 2nd St., Detroit, Mich.
Brooks Machine Co., The (Welding apparatus), 225 West Lewis St., Wichita, Kan.
Brooks, M. S., & Sons (Cotters and keys), Chester, Conn.
Brooks Oil Company (Boiler metal treatment), 3306 E. 87th St., Cleveland, O.
Brookside Brass Foundry & Mfg. Co. (Self closing cocks and bibbs), 4612 Oak Park Ave., Cleveland, O.
Bros. Wm., Boiler & Mfg. Co. (Boilers and tanks), Nicollet Island, Minneapolis, Minn.
Brower, Charles R., & Co. (Asbestos products), 11[illegible] Virginia St., Seattle, Wash.
Brown, A. & F., Co., The (Pulleys, shafting, etc.), 3rd St. & Port Ave., Elizabethport, N. J.
Brown, Arthur S., Mfg. Co. (cotton belting), Tilton, N. H.
Brown Clutch Co., The (Clutches and hoists), South Camp St., Sandusky, O.
Brown Co. (Fibre pipe & fittings), Portland, Me.
Brown, D. P., & Co. (Composition belting), 1440 Parrish Place, Philadelphia, Pa.
Brown, E. C., Co., The (Spray pumps, etc.), 84[illegible] Maple St., Rochester, N. Y.
Brown Engineering Co. (Friction clutches), 123 No. 3rd St., Reading, Pa.; New York.
Brown Fence Co. (Calking tools, etc.), Chattanooga, Tenn.
Brown Hoisting Machinery Co., The (Hoisting mach'y), 4403 St. Clair Ave., Cleveland, O.; Chicago, New Orleans, New York, Pittsburgh, San Francisco.
Brown Instrument Co., The (Edward Brown & Co.) Thermometers, pyrometers, etc.), Wayne & Roberts Sts., Philadelphia, Pa.
Brown, John, Boiler Co. (Steam boilers), 604 Federal Commerce Trust Bldg., St. Louis, Mo.
Brown Broom Mfg. Co. (Brooms and brushes), 13[illegible] State St., Boston, Mass.
Brown-Lynch-Scott Co. (Hardening compound cleaner), Monmouth, Ill.
Brown, R. H., & Co. (Drill chucks), 198 Brown St., New Haven, Conn.
Brown Safety Ladder Mfg. Co. (Ladders), 439 S. Clark St., Chicago, Ill.
Brown-Thomas Co., Inc. (Toilet paper holders), 24[illegible] Kirk Ave., Syracuse, N. Y.
Brown & Cook (Pipe pushers), Ottumwa, Iowa.
Brown & Patterson (Fans forges, furnaces), [illegible] Marcy Ave., Brooklyn, N. Y.
Brown & Sharpe Mfg. Co. (Metal working machines and tools), Machinists Promenade, Providence, R. I.; New York; Philadelphia; Rochester; Detroit; Hartford; Chicago; Syracuse.
Browne, F. W., Co. (Wire brushes, etc), Farmington, N. H.
Brownell Co., The (Boilers, engines, heaters), No. Findlay St., Dayton, O.; 401 Bank of Commerce Bldg., St. Louis; 53 W. Jackson Blvd., Chicago.
Brownie Mfg. Co. (Clamps and wrenches), 2921-[illegible] Pennsylvania St., Fort Wayne, Ind. (See index to advertisement, pages 7, 8 and 9.)

Browning Crane Co., The (Cranes, steam shovels, etc.), 162d St. and Waterloo Rd., N.E., Cleveland, O.; 50 Church St., New York; Birmingham; 122 S. Mich., Chicago; San Francisco; Los Angeles; Portland; Seattle; Salt Lake City; Montreal.
Browning-Roberts Belting Co., Knoxville, Tenn.
Brubaker, W. L., & Bros. Co. (Reamers, taps, etc.), 50 Church St., New York, N. Y.; Millersburg, Pa.
Bruce-Macbeth Engine Co., The (Gas engines), 2111 Center St., N. W., Cleveland; Oliver Bldg., Pittsburgh.
Bruhn Mfg. Co., The (Tool chests), 39th Ave. and Georgia St., Gary, Ind.
Brunner Mfg. Co. (Air compressors), Broad St., Utica, N. Y.; 419 1st Nat'l Bank Bldg., Cincinnati, O.; San Francisco; Kansas City, Mo.
Brunswick-Balke-Collender Co. (W. C. seats), 629 So. Wabash Ave., Chicago, Ill.
Brunswick-Kroeschell Company (Wrenches, etc.), 4221 Diversey Ave., Chicago, Ill.
Bryan Mfg. Co., The (Wheelbarrows), Bryan, O.
Bryant Heater & Mfg. Co., The (Soldering furnaces, etc.), 1454 E. 17th St., Cleveland, O.; branch offices in principal cities.
Bryan Steam Corporation (Heating boilers), Peru, Ind.
Buchanan, C. G., Co., Inc. (Crushers and pulverizers), 90 West St., New York, N. Y.
Buchanan, C. G., Chemical Co. (Case hardening compounds), 4650 Baker Ave., Norwood, Cincinnati, O.
Buchanan, Thos., Co., The (Case hardening compounds), 114 W. Pearl St., Cincinnati, O.
Buck Bros. (Carpenter's tools), Millbury, Mass.
Buck, E. A., Co., (Oils and greases), Willimantic, Conn.
Buckeye Belting & Supply Co. (Leather belting, files and file holders), 135 St. Clair Ave., Cleveland, O.
Buckeye Blower Co. (Fans and blowers), 425 W. Town St., Columbus, O.
Buckeye Boiler Co. (Steam boilers), Dayton, O.
Buckeye Boiler Skimmer Co., The (Boiler cleaners, skimmers), Water Works Drive, Toledo, O.
Buckeye Brass & Mfg. Co., The (Bronze bushings, brass screws, etc.), 6410 Hawthorne, Cleveland, O.; Cincinnati; Detroit; Indianapolis; Kansas City; Philadelphia; San Francisco.
Buckeye Iron & Brass Works (Valves), 324 E. 3rd St., Dayton, O.
Buckeye Jack Mfg. Co., The (Lifting jacks), Alliance, O.
Buckeye Portable Tool Co., The (Pneumatic drills and grinders), 135 Wayne Ave., Dayton, O.
Buckeye Products Co., The (Foundry equipment), 7020 Carthage Ave., Cincinnati, O.
Buckeye Pump & Mfg. Co., The (House pumps), 409-417 South 18th St., Columbus, O.
Buckeye Saw Vise Co. (Vises, etc.), 2046 W. 55th St., Cleveland, O.
Buckeye Twist Drill Co., The (Twist drills and reamers), Alliance, O.
Buckley Rubber Co., J. W. (Mechanical rubber goods), 69 Warren St., New York, N. Y.
Bucklin, Chas. R., Belting Co. (Leather belting), Slater Ave., Pawtucket, R. I.
Buckner Process Co., Inc. (Belting), 390 Main St., Worcester, Mass.
Bucyrus Copper Kettle Works Co., The (Copper boilers), Bucyrus, O.
Buda Co., The (Railway track tools), Harvey, Ill.; 30 Church St., New York; Railway Exchange, St. Louis; Railway Exchange, Chicago.
Budd Grate Co., The (Grates), 2011 E. Hagert St., Philadelphia, Pa.
Buell Bros. (Radiator trucks), Fulton, N. Y.
Buettner, Chas. H., Co. (Graphite feeders), 959 W. Court St., Cincinnati, O.
Buffalo Batt and Felt Corp. (Mechanical felt goods), Depew, N. Y.
Buffalo Belt Dressing Co. (Belt dressing), 962 Kensington Ave., Buffalo, N. Y.
Buffalo Belting Works (Leather belting), 18 Ellicott St., Buffalo, N. Y.
Buffalo Bolt Co. (Bolts, screws, nuts), North Tonawanda, N. Y.; Buffalo, N. Y.; 1531 Monadnock Bldg., Chicago.
Buffalo Co-Operative Stove Co. (Incinerators), Amherst & Tonawanda Sts., Buffalo, N. Y.
Buffalo Forge Co. (Blowers, forges, engines, tools, etc), 490 Broadway, Buffalo, N. Y. Branches in principal cities.
Buffalo Foundry & Machine Co., The (Steam hammers), 1541 Fillmore Ave., Buffalo, N. Y.; 17 Battery pl., New York.
Buffalo Gas Radiator Corp. (Steam radiators), North Tonawanda, N. Y.
Buffalo Hoist & Derrick Co. (Cranes and hoists), 129 Erie St., Buffalo, N. Y.
Buffalo Mfg. Co., The (Water filters), 191 Clinton St., Buffalo, N. Y.
Buffalo Metal Furniture Mfg. Co. (Factory furniture), 1511-13 Niagara St., Buffalo, N. Y.
Buffalo Meter Co. (Water meters), 2911 Main St., Buffalo, N. Y.
Buffalo Nipple & Machine Co., Inc., (Pipe nipples), 335-37 Glenwood Ave., Buffalo, N. Y.
Buffalo Pitts Co. (Steam engines), 27 Carolina St., Buffalo, N. Y.
Buffalo Pulley and Caster Co., Inc. (Pulleys, casters and polishing wheels), 182 Breckenridge St., Buffalo, N. Y.
Buffalo Scale Co., Inc. (Scales), 1200 Niagara St., Buffalo, N. Y.; Chicago; Cleveland; New York.
Buffalo Specialty Co. (Oils and specialties), 375-377 Ellicott St., Buffalo, N. Y.
Buffalo Steam Pump Co. (Steam pumps), 490 Broadway, Buffalo, N. Y.; branches in principal cities.
Buffalo Wash Tray Works, Inc., 611 Tonawanda St., Tonawanda, N. Y.
Buffalo Weaving & Belting Co. (Valves, packing, belting), 215 Chandler St., Buffalo, N. Y.; 258 Broadway, New York; 229 W. Lake St., Chicago; San Francisco.
Buffalo Wire Works Co., Inc. (Wire cloth, lockers, etc.), 320 Terrace, Buffalo, N. Y.; 9-11 South 7th St., Philadelphia.
Buffum Tool Co. (Engineers' and mechanics' tools), Louisiana, Mo.
Buhring Water Purifying Co. (Water filters), 68 Murray St., New York, N. Y.
Buhrke, R. H., Co. (Leather goods), 4538 Fullerton Ave., Chicago, Ill.
Builders' Iron Foundry (Mach'y, water meters, etc.), 9 Codding St., Providence, R. I., Philadelphia, Chicago, New York, Atlanta, Dallas, San Francisco, Portland, Toronto, Kansas City.
Builders Specialty Co. (Back water traps), 415 W. 70th St., Chicago, Ill.
Built-Well Mfg. Co. (Water closet seats, etc.), 1458 W. Kinzie St., Chicago, Ill.
Bullard, E. D. (Workmen's helmets), 565 Howard St., San Francisco, Calif.
Bullard Machine Tool Co. (Metal working machines), Brewster St. & Canfield Ave., Bridgeport, Conn.
Bullard Specialty Co., The (Roof flanges), Tiffin, O.
Buller Coupler Company (Pulley lagging stretchers), Hillsboro, Kans.
Bullock, C. K., Co. (Sprocket wheels, etc.), 1357-61 Ridge Ave., Philadelphia, Pa.
Bullock Manufacturing Associates (Small tools), Rear of 46 Harrison Ave., Springfield, Mass.
Bundy Steam Trap Co. (Steam traps), 39 Elm St., Nashua, N. H.
Bunting Brass & Bronze Co., The (Castings, bearings, bushings), Toledo, O.; 722 S. Mich. Ave., Chicago; 245 W. 54th St., New York; 198 2nd St., San Francisco; 36 Oliver St., Boston.
Buol Machine Company, The (Mortiser chains), New Britain, Conn.
Burch Plow Works Co. (Car unloaders), Crestline, O.
Burdett Mfg. Co. (Oxygen generators), 15 Sheldon St., Chicago; 218 N. 15th St., W., Philadelphia, Pa.
Burgess Battery Company (Dry batteries), Madison, Wis.
Burgess-Norton Mfg. Co. (Small tools), Geneva, Ill.; 85 Walker St., New York.
Burgess Soldering Furnace Co. (Plumbers' furnaces), Columbus, O.
Burk, Alan R. H., Mfg. Co. (Copper sinks), 2260 No. Philip St., Philadelphia, Pa.
Burke Electric Company (Welding equipment), 12th & Cranberry Sts., Erie, Pa.
Burke Engineering Co. (Grates, furnaces, stokers), 421 No. Michigan Ave., Chicago, Ill.
Burke Machine Tool Co. (Metal working machines), Conneaut, O.
Burley Heater Co. (Heating boilers), Tyrone, Pa.
Burlingame, A., Co. (Pumps and engines), 149 Commercial St., Worcester, Mass.
Burlington Brass Works (Brass goods), Burlington, Wis.
Burman Specialty Co. (Laundry cocks), 1908 Lincoln St., N. E., Minneapolis, Minn.
Burnham Boiler Corp. (Heating boilers, etc.), Irvington, N. Y.
Burnley Battery & Mfg. Co. (Solders), North East, Pa.
Burns, E. Reed, Mfg. Corp. (Polishing wheels, etc.), 21 Jackson St., Brooklyn.
Burr's Damascus Tool Works (Molders' tools), 528 Fort St. E., Detroit, Mich.
Burr, John T. & Son (Cold saws, key seaters), 429 Kent Ave., Brooklyn, N. Y.
Burr Oak Belting Co., The (Leather belting), 1105-07 York St., Cincinnati, O.
Burrell Belting Co. (Canvas belting), 413 S. Hermitage Ave., Chicago, Ill.
Burrill, J. D., & Son (Band saw blades), Ilion, N. Y.
Burroughs, Charles, Co., The (Hydraulic machinery), 246 No. 10th St., Newark, N. J.
Burrows, F. A., Mfg. Co. (Boiler room appliances), York, Pa.
Burstein, Meyer, & Sons (Waste), Neenah, Wis.

Burt Mfg. Co., The (Power plant appliances), South & High Sts., Akron, O.
Bury Compressor Co. (Pumps and compressors), 1722 Cascade St., Erie, Pa.
Busch, J. C., Co. (Sandblast equipment), 136 Ferry St., Milwaukee, Wis.
Busch-Sulzer Bros.-Diesel Engine Co. (Oil engines), 3300 So. 2nd St., St. Louis, Mo.; 60 Broadway, New York, N. Y.; Rialto Bldg., San Francisco, Calif.
Bushnell, John S., & Co. (Power plant appliances), 146 Liberty St., New York, N. Y.
Bushnell Press Works (Presses), Thompsonville, Conn.
Bushnell Pump Co. (Pumps, tanks), Bushnell, Ill.
Business Men's Paper Press Co. (Baling presses), Wayland, Mich.
Buss Machine Works, The (Woodworking mach'y), Holland, Mich.
Bussmann Mfg. Co. (Electric fuses), 3819 No. 23rd St., St. Louis, Mo., New York, Chicago, San Francisco.
Butler Manufacturing Co. (Roof flanges), 900 6th Ave., S. E., Minneapolis, Minn.
Butler, Philip H., & Son Co. (Laundry trays, etc.), 624 Somerset Ave., Boston, Mass.
Butler, Thos. F. (Back water valves), 545 Broadway, Lorain, O.
Butt, H. G., Mfg. Co. (Vises), 352 Atlantic Ave., Boston, Mass.
Butterfield & Co., Division Union Twist Drill Co. (Thread cutting tools), Derby Line, Vt.; 11 S. Clinton St., Chicago; 62 Reade St., New York; 220 King St., W., Toronto; 131 St. Paul St. West, Montreal. (See index to advertisement, pages 7, 8 and 9.)
Butterworth Supply Co. (Plumbers' tools), 4200 Kensington Ave., Frankford, Philadelphia, Pa.
Butts, Frank E. (Plumbing supplies), 6306 University Ave., Chicago, Ill.
Byers, A. M., Company (Wrought pipe), 235 Water St., Pittsburgh, Pa.; branches in principal cities.
Byers Machine Co., The (Hoisting engines), Ravenna, O.
Byrnes Belting Co. (Belting and hose), 226 Plum St., St. Louis, Mo.; 1426 Grand Ave., Kansas City.

C.

C. H. & E. Manufacturing Co., Inc. (Pumps), 280 Mineral St., Milwaukee, Wis.
C. L. P. Electric Co., The (Portable drilling and grinding tools), 496 Broome St., New York, N. Y.
C-M-B Wrench Co. (Wrenches), Garwood, N. J.
C. S. B. Sprinkler Co. (Sprinklers), Laconia, N. H.
Cabco Iron Works (Radiators and valves), Gowanda, N. Y.
Cadman, A. W., Mfg. Co. (Blow-off valves, etc.), 2814 Smallman St., Pittsburgh, Pa.; 220 Broadway New York.
Cady, C. N., Co., Inc. (Gas engines), Canastota, N. Y.
Calder, Geo. H. (Grinding tools), Lancaster, Pa.
Caldwell, A. H., Mfg. Corp. (Plumbers' brass goods), Port Byron, N. Y.
Caldwell, H. W., & Son Co. (Elevating and transmission mach'y), 2410 W. 18th St., Chicago, Ill.; 2676 Woolworth Bldg., New York; 810 Main St., Dallas, Tex.
Caldwell, W. E., Co., Inc. (Friction clutches), 2370 Brook st., Louisville, Ky.
California Belting & Leather Co. (Leather belting), 165 N. Los Angeles St., Los Angeles, Calif.
California Screw Co. (Machine screws and nuts), 50 Tehama St., San Francisco, Cal.
California Tanning Co. (Lace belting), 1905 Shenandoah Ave., St. Louis, Mo.
California Waste Company, Inc. (Cotton and wool waste), 2415 Lenard St., Los Angeles, Cal.
Calkins-Cole Mfg. Co., The (Electric Hand Saws), Rockford, Ill.
Callahan, Geo., & Co. (Soldering flux, cement, etc.), 218 Front St., New York, N. Y.
Callahan, W. P., Co., The (Gas engines, mach'y), 901 E. Third St., Dayton, O.
Caloroil Burner Corporation (Oil burners for heating boilers), 5 E. 40th St., New York, N. Y.
Cambria Steel Co. (Wire and nails), Johnstown, Pa. (branches in all large cities).
Cambridge Sanitary Mfg. Co., Cambridge, O. (Affiliated with Universal Sanitary Mfg. Co.), New Castle, Pa.
Camden Copper Works, Inc. (Pans, evaporators), 559 S. 2nd St., Camden, N. J.
Camden Forge Co. (Forgings), Mt. Ephraim St. & Atlantic City R. R., Camden, N. J.
Camden Pottery Co. (Sanitary pottery), Orchard and Mt. Vernon Sts., Camden, N. J.
Cameron, A. S., Steam Pump Works (Steam and power pumps), 11 Broadway, New York, N. Y. Branches in principal cities.
Cameron, William (Pipe wrenches), 417 Chapin St., Toledo, O.
Campbell, Andrew, Inc. (Nibbling machines), Bridgeport, Conn.
Campbell-Hausfeld Co. (Furnaces), Harrison, O.
Campbell Irrigation Co. (Lawn sprinklers), Woodbury, N. J.
Cancos Mfg. Co. (Packings), Garden and Bridge Sts., Bridesburg, Philadelphia, Pa.
Canedy-Otto Mfg. Co. (Forges, blowers, etc.), Chicago Heights, Ill.
Canfield, H. O., Co. (Mechanical rubber goods), 191 Housatonic Ave., Bridgeport, Conn.
Canfield, M. C., Sons Co. (Babbitt and solder), 91 Wilsey St., Newark, N. J.
Canfield, H. O., Co. (Mechanical rubber goods), 191 Railroad Ave. and Garden St., Bridgeport, Conn.
Cann & Saul Steel Co. (Pipe hooks and straps), 516 Commerce St., Philadelphia, Pa.
Cannon Oiler Co. (Pump oilers), Keithsburg, Ill.
Cantilever Wrench Corp., The (Pipe wrenches), 40 Hamilton St., Paterson, N. J.
Canton Art Metal Co., The (Metal furniture), 2820 Winfield Way, N. E., Canton, O.
Canton Foundry & Machine Co., The (Portable cranes, sheet metal mach'y), 600 3rd St., S. E., Canton, O.
Canton Grate Co. (Grates and oil filters), 1711 Dillon Pl. N. E., Canton, O.
Canton Saw Co., The (Circular saws), 700 Walnut Ave., S. E., Canton, O.
Canton Supply Co. (Roof flanges), 212 3d St., S. E., Canton, O.
Cantslip Manufacturing Co., The (Bath and sink mats), 1 Cedar St., New York, N. Y.
Cap Screw & Nut Company of America (Bolts, nuts, etc.), 690 Hudson St., New York, N. Y.
Capen Belting & Rubber Co. (Belting), 1402 Chestnut St., St. Louis, Mo.
Capitol Brass Works (Cocks, gauges, valves), 2306 Franklin, Detroit, Mich.
Carbic Mfg. Co. (Contractors' lights), 21 So. 1st Ave. W., Duluth, Minn.; Chicago; Boston; New York
Carborundum Company, The (Grinding wheels and stones), Niagara Falls, N. Y. Branches in principal cities.
Card, S. W. Mfg. Co., Division of Union Twist Drill Co. (Taps, dies, etc.), Mansfield, Mass.; 62 Reade St., New York.
Cardwell Machine Co., The (Mach'y and pumps), 1900 E. Cary St., Richmond, Va.
Carew-Greene Engineering Co., Inc. (Steam separators), 1728 Grand Central Terminal, New York, N. Y.
Carey, Philip, Mfg. Co., The (Asbestos products), Lockland, Cincinnati, O.; branches in principal cities.
Carey, W. W., Co. (Woodworking mach'y), 225 Mt. Vernon St., Lowell, Mass.
Carleton Co. (Blow torches), 27 Commercial Ave., Cambridge, Mass.
Carling Tool & Machine Co., The, 302 Asylum St., Hartford, Conn.
Carling Turbine Blower Co. (Blowers), 104 Harding St., Worcester, Mass.; 30 Church St., New York; Chicago; Philadelphia; Boston; Kansas City; Atlanta.
Carlton Machine Tool Co. (Drills), Spring Grove and Meeker Sts., Cincinnati, O.
Carlyle Johnson Machine Co. (Friction chucks), Manchester, Conn.
Carnegie Steel Co. (Steel products), Carnegie Bldg., Pittsburgh, Pa., branches in principal cities.
Carolus Mfg. Co. (Bolt clippers), Sterling, Ill.
Carpenter, The J. M., Tap & Die Co. (Taps, dies, etc.), 17 Newell Ave., Pawtucket, R. I.
Carpenter Steel Co., The (Tool steels), River Rd. and Exeter St., Reading, Pa.
Carpenter, W. D., Co.—Liquid soap), 512 E. Water St., Syracuse, N. Y.
Carpenter & Paterson (Pipe hangers), 1190 Bennington St., Boston, Mass.
Carr Can Co. (Oilers), Raynham Center, Mass.
Carr Fastener Company, The (Grease guns), 31 Ames St., Cambridge, Mass.
Carr, J. B., Co. (Chains), 14th St. & 10th Ave., Troy, N. Y.
Carr, Joseph, Co., Inc. (Woodworking mach'y), 132 No. 7th St., Philadelphia, Pa.
Carrier Air Conditioning Co. of America (Humidifiers, etc.), 490 Broadway, Buffalo, N. Y.
Carrier Engineering Corp. (Humidifiers, etc.), 750 Frelinghuysen Ave., Newark, N. J.
Carroll, A. V., Machine Tool Co. (Lathes), Highland and Orchard Sts., Norwood, Cincinnati, O.
Carroll, L. W., Mfg. Co. (Friction clutches), Batavia, Ohio.
Carroll, P., & Sons (Range boilers, tanks, etc.), 1406-10 Fairmount Ave., Philadelphia, Pa.
Carroll & Jamieson Machine Tool Co., The (Lathes), Batavia, O.
Carter, R. L., Co., Inc. (Electric hand shapers), 1231 Chestnut St., Phoenix, N. Y.
Carter & Hakes Machine Co., The (Milling machines, vises, etc.), Winsted, Conn.
Carter Paint Co. (Paints), Liberty, Ind.

Carter White Lead Co. (White lead), 12042 S. Peoria St., Chicago, Ill.
Carty & Moore Engineering Co., Inc. (Radiator hangers), 611 West Larned St., Detroit, Mich.
Carver, C. R., Co. (Stamping presses), 20th and Clearfield Sts., Philadelphia, Pa.
Carver Tool Works (Plumbers' tools, etc), Spring Valley, N. Y.
Cary Mfg. Co. (Steel mats), Manhattan Bridge Plaza, Brooklyn, N. Y.
Case, W. A., & Son Mfg. Co. (Plumbing goods), 220 Delaware Ave., Buffalo, N. Y.
Casey-Hedges Co., The (Boilers, etc.), Chattanooga, Tenn.; Chicago, New York, New Orleans.
Cash, A. W., Company (Valves), 3rd and Eldorado Sts., Decatur, Ill.
Cash, A. W., Valve Mfg. Corp. (Valves), 250 E. Wood St., Decatur, Ill.
Cashin, W. D. (Steam specialties), 35 Hartford St., Boston, Mass.
Casler, Herman (Boring Heads), Canastota, N. Y.
Cassco Bar-Metallic Packing Co. (Steam packing), 3559 Lincoln Ave., Chicago, Ill.
Cassel, J. C., Co. (W. C. seats), Schaff Bldg., Philadelphia, Pa.
Castle, James M., Inc. (Fire fighting apparatus, 1718 Vine St., Philadelphia, Pa.
Catalog Service Department, The Cuneo Press, Inc. (Jobbers' catalogues), 455 W. 22nd St., Chicago, Ill.
Cayuta Mfg. Co. (Fire hydrants), Sayre, Pa.
Celite Products Co. (Insulation), 53 W. Jackson Blvd., Chicago. Branches in principal cities.
Cement Gun Co., Inc. (Cement gun), Allentown, Pa.
Cement Products Co. (Septic tanks), Box 123, Wilmington, N. C.
Cement Tools Company (Cement tools, etc.), 625 Turner St., Los Angeles, Cal.
Central Asbestos & Magnesia Co. (Asbestos coverings), 214 W. Grand Ave., Chicago, Ill.
Central Automatic Sprinkler Co. (Fire protection equipment), 243-47 E. Ashmead St., Germantown, Philadelphia, Pa.
Central Brass Mfg. Co. (Brass goods), 2950 E. 55th St., Cleveland, O.
Central City Chemical Co. (Pipe cleaner), 4250 N. Crawford Ave., Chicago, Ill.
Central Forging Company (Unions), Catawissa, Pa.
Central Foundry Co. (Cast iron pipe), 41 E. 42nd St., New York, N. Y.
Central Machine Co. (Governors and regulators), N. W. co., 7th and Wood St., Philadelphia, Pa.
Central Radiator Co. (Radiators, etc.), 41 E. 42nd St., New York, N. Y.
Central Specialty Co. (Plumbers' supplies), 7529 St. Aubin Ave., Detroit, Mich.
Central Specialty Mfg. Co. (Bathroom fittings), 404 So. Kolmar Ave., Chicago, Ill.
Central Stamping Co., Inc. (Gas heater valves), 2152 Larned St., E., Detroit, Mich.
Central Alloy Steel Corporation, The (Steel mill products), Massillon, O.
Central Steel Products Co. (Pipe nipples), Comanche Rd., Clinton, Iowa.
Central Supply Co. (Pipe bends and coils), 312 Third St., S., Minneapolis, Minn.
Central Tube Co. (Pipe and fittings), First Nat'l Bank Bldg., Pittsburgh; 122 S. Michigan Ave., Chicago; St. Louis, San Francisco, Philadelphia, Minneapolis, Louisville, Salt Lake City, St. Joseph, Mo.
Centrifugal Fan Co. (Fans), 9 Seventeenth Ave., Newark, N. J.
Centrifugal Pump Co. (House pumps), 87 Warren St., New York, N. Y.
Century Brass Works, Inc. (Drinking fountains and cocks), North Illinois St., Belleville, Ill.
Century Electric Co., (Fans and motors), 1806 Pine, St., St. Louis; branch offices in principal cities.
Century Hoist Mfg. Company (Chain hoists), Lock Haven, Pa.
Century Pump Co. (Deep well pumps), 719 6th St., Brooklyn, N. Y.
Chace, W. M., Valve Co. (Valves, etc.), 1450 21st St., Detroit, Mich.
Chadwick-Boston Lead Co. (Lead goods), 162 Congress St., Boston, Mass.
Chadwick & Trefethen (Reamers), 32 Bow St., Portsmouth, N. H.
Chain Belt Co. (Elevating and conveying mach'y, etc.), 736 Park St., Milwaukee, Wis.; branches in principal cities.
Chain Products Co., The (Chain), 3924 Cooper Ave., Cleveland; branch offices in principal cities.
Challenge Co. (Well supplies), Batavia, Ill.; Minneapolis; Kansas City; Omaha.
Challenge Machine Co. (Emery grinders), 5116 Springfield Ave., Philadelphia, Pa.
Chalmers Oil Burner Co. (Fuel oil burners), 1234 So. Central Ave., N. E., Minneapolis, Minn.
Chalmers Pump & Mfg. Co. (Pumps), Lima, O.

Chamberlain Co., The (Pipe cleaning compounds), 33 Terminal Way, Pittsburgh, Pa.; 35 Richmond St., E., Toronto, Ont.
Chamberlain-Haber Chemical Co., The (Pipe opener), 1103 W. 11th St., Cleveland, O.
Chambers, John C. (Belt dressing), 1827 Le Claire Ave., Chicago, Ill.
Chambersburg Engineering Co., The (Steam and hydraulic mach'y), Chambersburg, Pa.
Champion Blower & Forge Co. (Forges, blowers, drills, etc.), Lancaster, Pa.
Champion De Arment Tool Co. (Blacksmiths' tools), South Main St., Meadville, Pa.
Champion Hardware Co., The (Vises), Geneva, O.
Champion Machine & Forging Co. (Machine locknuts), 30 Church St., New York, N. Y.
Champion Mfg. Co. (Wood screws), 7332 Kimbark Ave., Chicago, Ill.
Champion Pneumatic Machinery Co. (Air compressors), 8164 South Chicago Ave., Chicago, Ill.
Champion Rivet Co., The (Rivets and pins), Harvard Ave. and E. 108th St., Cleveland, O.
Champion Tool Works Co. (Lathes), 4955 Spring Grove Ave., Cincinnati, O.
Chandler Co., The (Name plates), Napier St., Springfield, Mass.
Chandler Heater Co. (Heating boilers), 1210 So. 12th St., W., Cedar Rapids, Iowa.
Chandler Pump Co. (Well supplies), 804 1st Ave., Cedar Rapids, Ia.; Kansas City, Mo.
Chandler & Taylor Co. (Boilers and engines), 205 So. Addison St., Indianapolis, Ind.
Channon, James H., Mfg. Co. (Hoisting devices), 227 W. Erie St., Chicago.
Chapin, R. E., Mfg. Works (Oil pumps), Batavia, N. Y.
Chapin-Skelton Corporation (Burring fixture), 406 Ash St., Syracuse, N. Y.
Chapin-Stephens Co., The (Rules, planes, levels, etc.), Pine Meadow, Conn.; 126 Chambers St., New York.
Chapin, W. R., Co. (Steel cement), Indianapolis, Ind.
Chaplin-Fulton Mfg. Co., The (Steam specialties), 28-34 Penn Ave., Pittsburgh, Pa.
Chapman Engineering Co., The (Draft regulators), Mount Vernon, O.
Chapman's, T. M., Sons Co. (Saw-mill and wood working mach'y), Old Town, Me.
Chapman Valve Mfg. Co. (Valves and hydrants), Indian Orchard, Mass.; 141 High St., Boston; 180 La Fayette St., New York; 1011 Filbert St., Philadelphia; 111 W. Washington St., Chicago; Candler Bldg., Atlanta.
Chard Lathe Co. (Lathes), Newcastle, Ind.
Chard & Howe (Pipe coil cleaner), 256 Front St., New York, N. Y.
Charleston Lead Works, The (Lead pipe), Charleston, S. C.
Charlotte Leather Belting Co. (Leather belting), E. 6th St., Charlotte, N. C.; 564 W. Randolph St., Chicago, Ill.
Charlotte Pipe & Foundry Co. (Soil pipe, etc.), Charlotte, N. C.
Charter Gas Engine Co. (Gas engines), Sterling, Ill.; Phoenix, Arizona.
Charter Oak Stove & Range Co. (Laundry heaters), Antelope & Conduit Sts., St. Louis, Mo.
Chase Foundry & Mfg. Co. (Cars, trucks, etc.), So. Parsons Ave. and H. V. R. R., Columbus, O. (See index to advertisement, pages 7, 8 and 9.)
Chase Machine Co., The (Hoisting engines), 2313 Elm St., N. W., Cleveland, O.
Chase Metal Works (Brass and copper), 236 Grand St., Waterbury, Conn.; branches in principal cities.
Chase Turbine Mfg. Co., The (Saw mill mach'y), Orange, Mass.; 407 Press Bldg., Portland, Me.
Chaslyn Company, The (Hydrometers), 4611 Ravenswood Ave., Chicago, Ill.
Chatfield & Sharp (Fuel gas burners), Jamestown, N. Y.
Chattanooga Machinery Co. (Key seaters), Chattanooga, Tenn.
Chattanooga Saw Works, The (Saws), 1512 Williams St., Chattanooga, Tenn.
Chattanooga Wheelbarrow Co. (Wheelbarrows), 1300 E. 14th St., Chattanooga, Tenn.; 25 Leonard St., New York.
Chausse Mfg. Co. (Oil heaters), 3027 15th St., Detroit, Mich.
Cheesman, Elliott Company (Industrial Paints), 639-47 Kent Ave., Brooklyn, N. Y.
Chelsea File Works, Inc., The (Files), Norwich, Conn.
Chelsea Oil & Supply Co. (Lubricants), 17 Battery Pl., New York, N. Y.
Chemical Products Co. (Cleaners), 116 Christopher St., New York, N. Y.
Chemical Toilet Corporation (Chemical pipe cleaners), 801-811 Free St., Syracuse, N. Y.
Chemical Treatment Co. (Welding flux), 26 Broadway, New York, N. Y.
Chemical & Engineering Co. (Belt dressing), Watertown, N. Y.

Cheney Hammer Div. of the Prentiss Vise Co. (Hand hammers), Little Falls, N. Y.; branches in principal cities.
Cheney, S., & Son (Tool grinders), Manlius, N. Y.
Cherry Chemical Co., The (Boiler compounds), 1018 Callowhill St., Philadelphia, Pa.
Chesapeake Belting Co., The (Cotton belting), 823 McKim St., Baltimore, Md.
Chesterton, A. W., Co. (Packings, etc.), 64 India, Boston, Mass.
Chicago Asbestos Mfg. Co. (Asbestos covering), 1428 Orleans St., Chicago, Ill.
Chicago Automatic Electric Boiler Co. (Electric boilers), 1966 Southport Ave., Chicago, Ill.
Chicago Automatic Machine Co. (Screw machines), 400 N. Oakley Blvd., Chicago, Ill.
Chicago Belting Co. (Leather belting), 119 N. Green St., Chicago, Ill.; 127 Water St., New York; 1313 W. 6th St., Cleveland; 338 3rd Ave., Pittsburgh; 1242 18th St., Rockford, Ill.; 203 So. Peters St., New Orleans; 126 Pine St., San Francisco; 218 E. 3rd St., Los Angeles; 94 First St., Portland; 528 First Ave., So. Seattle; 262 Palace Theatre Bldg., Milwaukee; 30 South St., Boston, Mass.
Chicago Crucible Co. (Crucibles), 2525 Clybourn Ave., Chicago.
Chicago Die Casting Mfg. Co. (small pulleys), 2512 W. Monroe St., Chicago, Ill.
Chicago Down Draft Furnace Co. (Furnaces), 115 S. Clinton St., Chicago, Ill.
Chicago Dryer Co. (Laundry stoves), 2210-20 No. Crawford Ave., Chicago, Ill.
Chicago Engineer Supply Co. (Engineers' supplies), 22 W. Lake St., Chicago, Ill.
Chicago Expansion Bolt Co. (Expansion bolts), 126 So. Clinton St., Chicago, Ill.
Chicago Eye Shield Co. (Eye protectors), 2300 Warren Ave., Chicago, Ill.
Chicago Faucet Co. (Hose cocks and drinking fountains), 2712 N. Crawford Ave., Chicago, Ill.
Chicago File & Rasp Co. (Files and rasps), Grand Haven, Mich.
Chicago Flexible Shaft Co. (Gas furnaces, etc.), 5600 West Roosevelt Road, Chicago, Ill.
Chicago Fuse Mfg. Co. (Fuses), Laflin and 15th St., Chicago, Ill.
Chicago Granitine Mfg. Co. (Laundry trays, sinks, etc.), 4920 So. Rockwell St., Chicago, Ill.
Chicago Hardware & Fixture Co. (Wire rope fittings), 2056 Walnut St., Chicago, Ill.
Chicago Nipple Mfg. Co. (Wrought iron nipples), 1966 Southport Ave., Chicago, Ill.; Baltimore; Los Angeles, Cal.
Chicago Nut Manufacturing Co., The (Nuts and bolts), 2513 W. Cullerton St., Chicago; 58 Warren St., New York.
Chicago Pipe Co. (Cast iron plumbing goods), 840 W. Kinzie St., Chicago, Ill.
Chicago Pipethread Machine Company (Pipe threading machines), 1615 Racine St., Racine, Wis.
Chicago Pneumatic Tool Company. (Pneumatic and electric tools), 6 East 44th St., New York, N. Y.
Chicago Pottery Co. (Plumbing pottery), 1924 Clybourn Ave., Chicago, Ill.
Chicago Pulley & Shafting Co. (Power transmission equipment), 23 No. Desplaines St., Chicago, Ill. **(See index to advertisement, pages 7, 8 and 9.)**
Chicago Pump Co., The (Electric pumps), 2336 Wolfram St., Chicago, Ill.; New York; Kansas City; San Francisco.
Chicago Rawhide Mfg. Co. (Belting, packing gears, etc.), 1309 Elston Ave., Chicago, Ill.
Chicago Rhopac Products Co. (Metallic packing), 925 Wrightwood Ave., Chicago, Ill.
Chicago Rivet & Specialty Co. (Rivets), 1830 S. 54th Ave., Cicero, Ill.
Chicago Sanitary Rag Co., The (Wiping cloths), 2139 Loomis St., Chicago, Ill.
Chicago Screw Co., The (Bolts, screws, nuts), Fillmore St. and Homan Ave., Chicago, Ill.
Chicago Smelting & Refining Co. (Babbitt, etc.), 2457 Loomis St., Chicago, Ill.
Chicago Solder Co. (Solder), 4201 Wrightwood Ave., Chicago, Ill. **(See index to advertisement, pages 7, 8 and 9.)**
Chicago Spring Hinge Co. (Closet & lavatory hinges), 1500-2 Carroll Ave., Chicago, Ill.
Chicago Steel Foundry Co. (Wire rope sockets), 3720 S. Kedzie Ave., Chicago, Ill.
Chicago Tube & Iron Co. (Boiler tubes), 2531 W. 48th St., Chicago.
Chicago Waste Co. (Cotton and woolen waste), 1210 Elston Ave., Chicago, Ill.
Chicago Watchman's Clock Manufacturing Co., Inc. (Watchmen's clocks), 1526 S. Wabash Ave., Chicago, Ill.; 9 Church St., New York; 1421 Connecticut St., Los Angeles.
Chicago Well Supply Co. (Well supplies), 228-232 W. Ontario St., Chicago, Ill.
Chicago Wheel & Mfg. Co. (Grinding wheels), 1101 W. Monroe St., Chicago, Ill.
Chicago-Wilcox Mfg. Co. (Gaskets and washers), East 77th St. & Anthony Ave., Chicago, Ill.

Chicago Wire Chair Co., The (Factory stools), 619 N. La Salle St., Chicago.
Chino Tank Mfg. Co. (Water closet tanks, etc.), Mentor & Houston, Norwood, Cincinnati, O.
Chipman Chemical Engineering Co., Inc., 136 Liberty St., New York, N. Y.
Chisholm-Moore Mfg. Co., The (Hoists and trolleys), 5046 Lakeside Ave., N.E., Cleveland, O.; 30 Church St., New York; 554 Peoples Gas Bldg., Chicago, Ill.; Henry W. Oliver Bldg., Pittsburgh, Pa.
Chowning Regulator Corp. (Pumps), Corning, N. Y.
Christian Electrical Corp. (Water heaters), 2501 Isabella Ave., Detroit, Mich.
Christiana Machine Co. (Power transmission mach'y), Christiana, Pa.
Christiansen, C. (Vises, clamps, etc.), 2814-42 W. 26th St., Chicago, Ill.
Christoffels, E. F., & Son (Flue cleaners), 277-279 Eldert St., Brooklyn, N. Y.
Christopher, Geo. C., & Son (Concrete machinery), Wichita, Kan.
Church, C. F., Mfg. Co. (White bathroom fittings), Holyoke, Mass.
Church Expansion Bolt Co., Isaac (Expansion bolts), No. 1 Fourth St., East Norwalk, Conn.
Chuse Engine & Mfg. Co. (Steam engines), Mattoon, Ill.
Cincinnati Abrasive Wheel Co. (Grinding wheels), Covington, Ky.
Cincinnati Automatic Machine Co. (Milling machines), South Oakley, Cincinnati, O.
Cincinnati Ball Crank Co., The (Machine handles), North St., near Columbia, Oakley, Cincinnati, O.
Cincinnati Bickford Tool Co. (Machine tools), 3229 South St., Oakley, Cincinnati, O.
Cincinnati Closet Seat Co. (Water closet seats, etc.), 121 E. Second St., Cincinnati, O.
Cincinnati Electrical Tool Co. (Drills and grinders), Madison & Edwards Roads, Cincinnati, O.
Cincinnati Galvanizing Co., The (Oily waste cans), Spring Grove & Chickering St., Cincinnati, O.
Cincinnati Gear Co., The (Gears), 1825-41 Reading Rd., Cincinnati, Ohio.
Cincinnati Gear Cutting Machine Co., The (Gear cutters), Elam St. and Garrard Ave., Cincinnati, O.
Cincinnati Grinder Co., The (Grinding machines), Marburg and South Sts., Cincinnati, O.; branches in principal cities.
Cincinnati Lathe & Tool Co., The (Engine lathes), 3207-3211 North St., Oakley, Cincinnati, O.
Cincinnati Milling Machine Co. (Millers and grinders), Marburg Ave. & South St., Oakley, Cincinnati, O.
Cincinnati Mine Machinery Co. (Coal cutters), Elam St. and Garrard Ave., Cincinnati, O.
Cincinnati Nipple & Supply Co. (Nipples), 1324-3[illegible] Freeman Ave., Cincinnati, O.
Cincinnati Oil Works Co., The (Lubricants), 52[illegible] Eggleston Ave., Cincinnati, O.
Cincinnati Planer Co., The (Machine tools), South St., Oakley, Cincinnati, O.
Cincinnati Rubber Mfg. Co., The (Mechanical rubber goods), Franklin Ave. and B. & O. R. R., Norwood, Cincinnati, O.; New York; Chicago.
Cincinnati Shaper Co., The (Shapers), Garrard and Elam Sts., Camp Washington, Cincinnati, O.
Cincinnati Specialty Mfg. Co., Inc. (Electric light reels), 1907 Powers St., Cincinnati, O.
Cincinnati Tool Co., The (Hand tools), Montgomery Ave., Norwood, Cincinnati, O. (See index to advertisement, pages 7, 8 and 9.)
Circular Tool Co. (Saws, etc.), 71 Willard Ave., Providence, R. I.
Cisco Machine Tool Co. (Lathes), 1767 Elmore St., N. S., Cincinnati, O.
Cissell, W. M., Mfg. Co., 111 So. 2nd St., Louisville, Ky.
Claflin, C. A., Co. (Flue cleaners, etc.), 62 Pearl St., Boston, Mass.
Clancy, J. R., Inc. (Hose menders), 1010-1020 W. Belden Ave., Syracuse, N. Y. **(See index to advertisement, pages 7, 8 and 9.)**
Clapp, Harry D. B., & Co., (Waste), 824 N. American St., Philadelphia, Pa.
Clarage Fan Co. (Blowers), Kalamazoo, Mich.; Chicago, Cleveland, New York, Boston, Minneapolis, Detroit, Pittsburgh, Philadelphia, Rochester, Los Angeles, St. Louis.
Clark Bros. Bolt Co. (Bolts, screws), Milldale, Conn.
Clark Bros. Company (Sawmill mach'y), Olean, N. Y.
Clark, C. H. (Flexible shaft couplings), 60 Grand St., New York, N. Y.
Clark Cadle Harmon Corp. (Soldering furnaces), 192 Mill St., Rochester, N. Y.
Clark Cast Steel Cement Co. (Iron cement), Shelton, Conn.
Clark Engine & Boiler Co. (Boilers and engines), Kalamazoo, Mich.
Clark Equipment Co. (Drills, reamers, etc.), Buchanan, Mich.; Detroit; Pittsburgh.
Clark Flexible Metallic Packing Co. (Packings), Kennebec St., Portland, Me.
Clark, Geo. P., Co., The (Trucks and casters), Windsor Locks, Conn.; 116 Nassau St., New York.

Clark, H. W., Co. (Meter boxes), 1711 Broadway, Mattoon, Ill.
Clark, Henry N., Co. (Cast iron sinks, etc.), 56 Union St., Boston, Mass.
Clark, James, Jr., Electric Co. (Electric tools), 600 E. Bergman St., Louisville, Ky.
Clark Machinery Co. (Boring tools), 1235 St. Clair Ave., Cleveland, O.
Clark Tool Wks., Inc. (Band saws), Belmont, N. Y.
Clark Tructractor Company (Factory trucks), Days Ave., Buchanan, Mich.
Clarke, F. H., Mfg. Co. (Concrete mixers), 10721 Superior Ave., Cleveland, O.
Clarke, Robt., Inc. (Traps), 98 Schermerhorn St., Brooklyn, N. Y.
Clarke Sanding Machine Co. (Sanders), 3818 Cortland St., Chicago, Ill.
Clarke's Saw & Machine works (Saw blades), 66 Alpine St., Newark, N. J.
Clarksville Foundry & Machine Works (Iron plumbing goods), Clarksville, Tenn.
Clay Engine Mfg. Co. (Gas engines), 864 E. 72d St., Cleveland, O.
Clay, John H. (Nozzle holders), 1318 Ridge Ave., Philadelphia, Pa.
Clayton Air Compressor Works (Air purifying apparatus), 115 Broadway, New York, N. Y.
Clayton & Lambert Mfg. Co. (Fire pots and torches, 6282 Beaubien St., Detroit, Mich.
Cleanwell Mfg. Co. (Closet bowl cleaners), 946 W. North Ave., Chicago, Ill.
Cleghorn & Co. (Laundry stoves), 54 Batterymarch St., Boston, Mass.
Clements Mfg. Co. (Electric blowers), 601-13 Fulton St., Chicago, Ill.
Clemson Bros., Inc. (Saws), Middletown, N. Y.
Clemson Knife Co. (Hack saws), Woburn, Mass.
Clendenin Bros., Inc. (Brass and copper goods), 108 South St., Baltimore, Md.
Clenzall Machine Co. of America (Barrel trucks), 1328 S. Kingshighway, St. Louis, Mo.
Cleveland Abrasive Wheel Co. (Grinding wheels), 2629 E. 25th St., Cleveland, O.
Cleveland Armature Works, Inc. (Grinders), 4732 St. Clair Ave., Cleveland, O.
Cleveland Automatic Machine Co. (Lathes), 2269 E. 65th St., Cleveland, O.
Cleveland Block Co. (Tackle blocks), 1173 W. 11th St., N. W., Cleveland, O. (See index to advertisement, pages 7, 8 and 9.)
Cleveland Blow Pipe & Mfg. Co. (Dust collectors), 6950 Kinsman Road, Cleveland, O.
Cleveland Brass Mfg. Co., The (Brass goods), 4606-4700 Hamilton Ave., Cleveland, O.
Cleveland Brass & Copper Mills (Brass rods, sheets, etc.), Euclid, O.
Cleveland Cap Screw Co. (Capscrews), 2921 E. 79th St., Cleveland, O. (See index to advertisement, pages 7, 8 and 9.)
Cleveland Chain & Mfg. Co. (Chain), Stop 2, A. B. C. R. R., Cleveland, O.
Cleveland Clamp Co. (Clamps), 17426 Woodford Ave., Lakewood, O.
Cleveland Crane & Engineering Co. (Cranes), Wickliffe, O.; 50 Church St., New York; Farmers Nat'l Bank Bldg., Pittsburgh.
Cleveland Faucet Co., The (Brass goods, pumps, etc.), 1396 E. 9th St., Cleveland, O.; 412 3d Ave., Pittsburgh.
Cleveland Feed Water Regulator Co., The (Boiler feed regulators, etc.), 2734 Tennyson Road, S. E., Cleveland, O.
Cleveland Flue Cleaner Mfg. Co. (Flue cleaners, etc.), 5318 St. Clair Ave., Cleveland, O.
Cleveland Flush-Meter Co. (Flush valves), 118 Noble Court, Cleveland, O.
Cleveland Flux Co., The (Foundry flux), 1026 Main St., Cleveland, O.
Cleveland Gas Burner & Appliance Co. (Fuel gas burners), 3704 Superior Ave., Cleveland, O.
Cleveland Gas Meter Co. (Gas meters), 2180 E. 65th St., Cleveland, O.
Cleveland Graphite Bronze Co. (Bearings), 882 E. 72nd St., Cleveland, O.
Cleveland Hardware Co., Lakeside Ave. & E. 45th St., Cleveland, O.
Cleveland Heater Co., The (Garage heaters), 1900 W. 112th St., Cleveland, O.
Cleveland Instrument Co. (Pyrometers), 1988 E. 66th St., Cleveland, O.
Cleveland Knife & Forge Co. (Machine knives), 1960 W. 114th St., Cleveland, O.; 519 Wood St., Pittsburgh, Pa.
Cleveland Machinery Co. (Sawdust conveyors), Cleveland, Tenn.
Cleveland National Machine Co., The (Tool holders), 1354 West 70th St., Cleveland, O.
Cleveland Oak Belting Co. (Leather belting), 1239 W. 9th St., Cleveland, O.
Cleveland Planer Co., The (Planers), 3148 Superior Ave., Cleveland, O.
Cleveland Punch & Shear Works Co. (Punches, shears, etc.), 3917 St. Clair Ave., N. E., Cleveland, O.; 511 Farmers Bank Bldg., Pittsburgh, Pa.; 80 E. Jackson Blvd., Chicago, Ill.; 50 Church St., New York, N. Y.; 321 Bulletin Bldg., Philadelphia, Pa.
Cleveland Rock Drill Co. (Pneumatic tools), 3734 E. 78th St., Cleveland, O.; 30 Church St., New York; Sacramento, Cal.; Denver; Salt Lake City.
Cleveland Steam Gauge Co. (Steam gauges, etc.), 1100 W. 9th St., Cleveland, O.
Cleveland Steel Barrel Co. (Steel barrels), 9612 Meech Ave., S. E., Cleveland, O.
Cleveland Steel Tool Co., The (Punches, dies and rivets), 660 E. 82nd St., Cleveland, O.
Cleveland Stone Co., The (Grinding machine), Union Trust Bldg., Cleveland, O.; 283 Front St., New York, N. Y.
Cleveland Twist Drill Co. (Drills, reamers, etc.), Lakeside Ave., N. E., and E. 49th St., Cleveland, O.; 30 Reade St., New York; 9 N. Jefferson St., Chicago.
Cleveland Wheelbarrow & Mfg. Co. (Wheelbarrows), Stop 3, A. B. C. Ry., Cleveland, O.
Cleveland Wire Cloth & Mfg. Co., The (Wire cloth, screens, etc.), 3573-83 East 78th St., Cleveland, Ohio.
Cleveland Wire Spring Co., The (Factory furniture), 1281 E. 38th St., Cleveland, O.
Cleveland Worm & Gear Co. (Speed reducers), 3249 East 80th St., Cleveland, O.
Cleveland Wrought Products Co. (Washers, nuts, etc.), 3590 W. 58th St., Cleveland, O. (See index to advertisement, pages 7, 8 and 9.)
Climax Motor Devices Co. (Flexible shaft couplings), Chagrin Falls, O.
Climax Smoke Preventer Co., Inc. (Smoke preventers), 261 Franklin St., Boston, Mass.
Cling-Surface Co. (Belt dressing), 1032-48 Niagara St., Buffalo, N. Y.
Clinton Mfg. Co. (Packings), 83 Grand Ave., Brooklyn, N. Y.
Clinton Metallic Paint Co. (Paints, etc.), Clinton, N. Y.
Clip-Bar Manufacturing Co. (Radiator brackets), Erie Ave. & Richmond St., Philadelphia, Pa.
Clipper Belt Lacer Co. (Belt lacing machines), 974-1042 Front Ave., N. W., Grand Rapids, Mich. (See index to advertisement, pages 7, 8 and 9.)
Clipper Tool Co. (Tools), 284 Mills St., Buffalo, N. Y.
Clizbe Bros. Mfg. Co. (Grinding mach'y), Plymouth, Ind.; 203 W. Broadway, New York.
Clover Mfg. Co. (Grinding compounds), Norwalk, Conn.
Clow, James B., & Sons (Pipe and fittings), No. Talman Ave. & W. Lake St., Chicago, Ill.; New York, San Francisco, Detroit, St. Louis, Minneapolis, Milwaukee, Philadelphia, Pittsburgh.
Clyde Iron Works (Logging mach'y), 29th Ave., W., & Michigan St., Duluth, Minn.
Coal Economy Corp. (Heating boiler blowers), 310 So. Michigan Blvd., Chicago, Ill.
Coast Heater Mfg. Co. (Gas water heaters), Monrovia, Cal.
Coates Clipper Mfg. Co. (Electric tools), 237 Chandler St., Worcester, Mass.
Coatesville Boiler Works (Boilers and Tanks), Coatesville, Penna.
Coats Machine Tool Co., Inc. (Micrometer gauge), 110 West 40th St., New York, N. Y.
Cochise Rock Drill Mfg. Co. (Rock drills), 273 W. 115th St., Los Angeles, Cal.; 107 E. Broadway, Butte; Goldfield, Nev.; Salt Lake City; 139 Townsend St., San Francisco; 5 So. Stevens St., Spokane, Wash.; Prescott, Ariz.
Cochran-Drugan & Co. (Sanitary earthenware), Trenton, N. J.
Cochrane-Bly Co. (Metal working mach'y), 15 St. James St., Rochester, N. Y.
Cochrane Corp. (Feed water heaters), 3161 No. 17th St., Philadelphia, Pa.
Cochrane, J. A., Brass Mfg. Co. (Plumbing brass goods), 1390 E. 41st St., Cleveland, O.
Codd, E. J., Co. (Pumps, engines, mach'y), 700-8 S. Caroline St., Baltimore, Md.
Codd Tank & Specialty Co., The (Grates, etc.), 115 South St., Baltimore, Md.
Codman, F. L. & J. C. Co. (Electro-plating supplies), 15 Elkins St., Boston, Mass.
Coe & Brown Co. (Leather belting), 204 George St., New Haven, Conn.
Coe Mfg. Co., The (Woodworking mach'y), Painesville, O.
Coes Wrench Co. (Wrenches), 1 Coes Sq., Worcester, Mass.
Coffin Valve Co. (Valves and hydrants), 20 Tolman St., Boston, Mass.
Cogsdill Mfg. Co., The (Drills, reamers, etc.), 6511 Epworth, Detroit, Mich.
Cohoes Rolling Mill Co. (Iron pipe), Cohoes, N. Y.
Cokal Stoker Corp (Stokers), 400 No. Michigan Ave., Chicago, Ill.

Coin Controlling Lock Co. (Coin locks for closet doors), 617 Traction Bldg., Indianapolis, Ind.
Colburn Machine Tool Co. (Metal working mach'y), 1038 Ivanhoe Rd., Cleveland, O.
Coldren Rubber Co. (Rubber washers), Lebanon, Pa.
Coldwell-Wilcox Co. (Sluice gates, valves, etc.), Newburgh, N. Y.
Cole Engineering Co. (Bearing metal), 20th & Whiteside Sts., Chattanooga, Tenn.
Cole, R. D., Mfg. Co. (Boilers and tanks), Newnan, Ga.
Colebrook's, W. H., Sons (Cements, paints, etc.), 1419-21 Orange St., Syracuse, N. Y.
Coleman, Allan J. (Plumbing specialties), 208 No. Wabash Ave., Chicago, Ill.
Colladay Machine Works (Woodworking mach'y), Venango & Hope Sts., Philadelphia, Pa.
Collins Company, The (Forged tools), Collinsville, Conn.
Collins Mfg. Co. (Pipe hangers), 208 2nd Ave., Pittsburgh, Pa.
Collins Metallic Packing Co. (Metallic packing), 56 No. 2nd St., Philadelphia, Pa.
Collis Company, The (Drill chucks), Clinton, Ia.
Collmer Bros. (Pipe cutters, etc.), 114-120 Lincoln Way, E., South Bend, Ind.; 28-30 W. Broadway, New York, N. Y.; 80-82 N. 5th St., Portland, Ore.
Colonial Foundry & Machine Works (Plumbing brass goods), 32 Portland St., Boston, Mass.
Colorado Sanitary Wiping Cloth Co. (Wiping cloths), 2637 W. 13th Ave., Denver, Colo.
Colossus Company, Inc. (Packing), 115½ Texas St., Shreveport, La.; Seattle.
Colt, J. B., Co. (Gas burners), 30 E. 42nd St., New York, N. Y.
Colton, Arthur Co. (Filing machines), 2600 Jefferson Ave. E., Detroit, Mich.
Colts Patent Firearms Mfg. Co. (Metal parts, washers), 17 Vandyk Ave., Hartford, Conn.
Columbia Belting Co. (Leather belting), 49 First St., Portland, Ore.
Columbia Fire Extinguisher Co. (Fire extinguishers), 174 Centre St., New York, N. Y.
Columbia Glass Co. (Gage glasses), Fairmont, W. Va.
Columbia Manufacturing Co. (Grinding and polishing mach'y, etc.), 600 Lebanon Ave., Belleville, Ill.
Columbia Nut & Bolt Co., Inc. (Locknuts), 1500 Railroad Ave., Bridgeport, Conn.
Columbia Sanitary Mfg. Co. (Plumbing goods), 18th & Magnolia Sts., Louisville, Ky.
Columbia Steel Corp. (Steel mill products), Balfour Bldg., San Francisco, Cal.
Columbia Steel & Shafting Co. (Shafting and tool steel), Kirkwood St., Pittsburgh, Pa.; Boston, Cleveland, Philadelphia, Washington, Detroit.
Columbia Tool Steel Co. (Tool steel), Chicago Heights, Ill.
Columbia Vari-Speed Co. (Variable speed transmission), 4020 W. Lake St., Chicago, Ill.
Columbia Wax Works (Candles, etc.), Ocean Ave. & South St., New York, N. Y.
Columbian Iron Works (Hydrants, valves, mach'y), 811 Boyce St., Chattanooga, Tenn.
Columbian Rope Co. (Manila rope), Auburn, N. Y.; 31-35 Burling Slip, New York; 38 Commercial Wharf, Boston.
Columbian Steel Tank Co. (Steel tanks, etc.), 1601-1621 W. 12th St., Kansas City, Mo.
Columbian Vise & Mfg. Company, The (Vises and clamps), 9021 Bessemer Ave., Cleveland, O.
Columbiana Boiler Co., The (Boilers, tanks, cars, etc.), Columbiana, O.
Columbiana Pump Co. (Deep well pumps), Columbiana, O.
Columbus Anvil & Forging Co., The (Anvils), 123-127 W. Frankfort St., Columbus, O. (See index to advertisement, pages 7, 8 and 9.)
Columbus Belting & Supply Co. (Leather belting), 195 E. Long St., Columbus, O.
Columbus Bolt Works Co. (Bolts, nuts, etc.), 160 W. Randolph St., Columbus, O.; Detroit.
Columbus Brass Co. (Brass goods), 540 Dublin Ave., Columbus, O.
Columbus Handle & Tool Corp., The (Handles and tools), Columbus, Ind.
Columbus Iron Works Co. (Ammonia compressors, Columbus, Ga.
Columbus McKinnon Chain Co. (Chains), Tonawanda, N. Y.
Columbus Machine Works (Pipe threading machines), Columbus, Ind.; Kansas City, Mo.
Columbus Steam Boiler & Heater Co. (Boilers and tanks), 302 Kimball St., Columbus, O.
Columbus Steam Pump Works Co., The (Steam pumps), 83 W. Broad St., Columbus, O.
Com-Bah Fibroid Co. (Water closet seats), Fairfield, Me.
Combustion Engineering Corp. (Power plant equipment), 200 Madison Ave., New York, N. Y.
Combustion Fuel Oil Burner Co., The (Oil burners for heating boilers), 8-10 Keefe Ave., Milwaukee, Wis.
Combustion Service Corporation (Power plant equipment), 25 Beaver St., New York, N. Y.
Combustion Utilities Corp. (Industrial furnaces), 60 Wall St., New York, N. Y.
Comet Electric Co. (Electric lighting plants), 1237 St. Paul St., Indianapolis, Ind.
Comet Radiator Co. (Radiators), 2010 Market St., Philadelphia, Pa.
Commercial Acetylene Supply Co., The (Acetylene equipment), 80 Broadway, New York, N. Y.
Commercial Bag Co. (Burlap and cotton bags), 527 N. Second St., St. Louis, Mo.
Commercial Chemical Co. (Belt dressing), 212 Essex St., Boston, Mass.
Commercial Grinding Wheel Co. (Grinding wheels), 4507 Armitage Ave., Chicago, Ill.
Commonwealth Brass Corp., 5781 Commonwealth Ave., Detroit, Mich.; New York; Chicago; San Francisco.
Community Machine & Tool Works, Inc. (Thread grinders), 122 Center St., New York, N. Y.
Compound Injector & Specialty Co. (Plumbers' specialties), 419-421 No. Laramie Ave., Chicago, Ill.
Compressed Spruce Products Co. (Wood rim pulleys), West Orange, N. J.
Compressed Steel Shafting Co. (Shafting), 1587 Hyde Park Ave., Boston, Mass.
Compton, W. H., Shear Co., The (Shears and cutlery), 314-320 Camden St., Newark, N. J.
Conant Bros. Co. (Bathroom fixtures), 21 Vine St., Somerville, Mass.
Conant & Donelson Co. (Taps, dies, etc.), Conway, Mass.
Conard, Fred D. (Plumbers' supplies), Crosky & Snyder Sts., Philadelphia, Pa.
Concord Foundry & Machine Co. (Cast iron pulleys), Concord, N. H.
Concord Mfg. Co., The (Heating boilers), 429 E. 3rd St., Dayton, O.
Concord Woodworking Co. (Sinks, etc.), Concord, N. H.
Concrete Specialty Mfg. Co. (Laundry trays), 1904 Fond du Lac Ave., Milwaukee, Wis.
Concrete Surfacing Machinery Co. (Concrete surfacers), 4669 Spring Grove Ave., Cincinnati, O.
Concrete Waterproof Paint Co. (Coatings, paints, etc.), 835 No. 3rd St., Philadelphia, Pa.
Cone Automatic Machine Co., Inc. (Lathes), Windsor, Vt.
Conemaugh Iron Works (Enameled plumbing goods), Latrobe, Pa.
Conewango Car Co. (Car movers), Warren, Pa.
Conkey, H. D., & Co. (Cranes and wheelbarrows), Mendota, Ill.
Conneaut Can Co., The (Metal shipping cans), Conneaut, O.
Conneaut Packing Co. (Plastic metallic packing), Conneaut, O.
Conneaut Shovel Co., The (Shovels and scoops), Conneaut, O.
Connecticut Belting Co., The (Leather belting), 96 Chestnut St., Norwich, Conn.
Connecticut Brass & Mfg. Corp. (Brass sheets, etc.), 480 Watertown Ave., Waterbury, Conn.
Connecticut Valley Mfg. Co., The (Expansion bits), Centerbrook, Conn.
Connelley, D., Boiler Co. (Steam boilers), 1170 Ivanhoe Road, Cleveland, Ohio.
Connellsville Machine & Car Co. (Mine pumps and mach'y), Connellsville, Pa.
Connellsville Mfg. & Mine Sup. Co. (Pumps, hoists, fans, etc.), Connellsville, Pa.
Connersville Blower Co. (Positive pressure blowers), Connersville, Ind.; 53 W. Jackson Blvd., Chicago; 114 Liberty St., New York.
Connery & Co., Inc. (Tanks, etc.), 2nd & Luzerne Sts., Philadelphia, Pa.
Connor, Miles A. (Unions), 39 Niagara St., Lockport, N. Y.
Connor, W. B., Co., Inc. (Steam traps), 369 Lexington Ave., New York, N. Y.
Connors, Wm., Paint Mfg. Co. (Paints, cements, etc.), 669-675 River St., Troy, N. Y.
Conrad Foundry Co. (Plumbing specialties), 861 Elizabeth Ave., Elizabeth, N. J.
Conradson Machine Tool Co. (Lathes), Green Bay, Wis.
Conran Anti Freezing Closet Co. (Factory W. C.), 26 Ferry St., New York, N. Y.
Consolidated Engine Stop Co., Inc. (Engine stops), 120 Liberty St., New York, N. Y.
Consolidated Expanded Metal Companies, The (Expanded metal), 2531 Arthington, Chicago, Ill.
Consolidated Instrument Co. of America (Electric drills), 41 E. 42nd St., New York, N. Y.
Consolidated Iron Works (Engines and wheelbarrows), Hoboken, N. J.
Consolidated Machine Tool Corp. of America (Machine tools), 150 Broadway, New York, N. Y.
Consolidated Mfg. Co. (Brass and copper goods), 28 No. Canal St., Dayton, O.
Consolidated Packing & Supply Co., The (Packings), 21 Barclay St., New York, N. Y.
Consolidated Pump Co. (Wood scaffolding), Toledo, O.

Consolidated Safety Valve Co., The (Valves), Pershing Square Bldg., New York, N. Y.; 27 N. Jefferson St., Chicago.
Consolidated Shipbuilding Corp. (Gas engines and boilers), Morris Heights, New York, N. Y.
Consolidated Steel Strapping Co. (Pipe hangers), 2600 N. Western Ave., Chicago, Ill.
Consolidated Tool Works, Inc., 296 Broadway, New York.
Constant XX Century Corporation (Transmission machinery), Euclid Ave., Bloomington, Ill.
Construction Machinery Co. (Concrete mixers), Waterloo, Ia.; 453 E. 3rd St., Los Angeles, Calif.
Consumers Waste & Wiper Co. (Wiping cloths), Webster Ave. and the river, Chicago, Ill.
Continental Auto Parts Co. (Garage equipment), Columbus, Ind.
Continental Brass Foundries Co., 2700 So. 7th St., St. Louis, Mo.
Continental Fibre Co., The (Fibre goods), Newark, Del.; 233 Broadway, New York; 525 Market St., San Francisco, Cal.; 301 Fifth Ave., Pittsburgh; 332 S. Michigan Ave., Chicago; 411 S. Main St., Los Angeles; Rochester, N. Y.
Continental Rubber Co. (Mechanical rubber goods), 19th & Liberty Sts., Erie, Pa.
Continental Valve & Equipment Co., Inc. (Fittings and unions), 80 E. Jackson Blvd., Chicago, Ill.
Continental Wood Screw Co. (Screws), Mount Pleasant St., New Bedford, Mass.
Contractors' Equipment Co. (Concrete mixers), Keokuk, Iowa.
Conveying Weigher Co., The (Belt Fasteners), 90 West St., New York, N. Y.
Conveyors Corp. of America (Coal and ash handling equipment), 326 W. Madison St., Chicago, Ill.
Conway Clutch Co. (Friction clutches), 1952 W. 6th St., Cincinnati, O.
Cook, A. D., Inc. (Well supplies), Lawrenceburg, Ind.
Cook's, Adam, Sons, Inc. (Lubricants), 6 Varick St., New York.
Cook Air Valve Co. (Radiator valves), Realty Bldg., Charlotte, N. C.
Cook, C. Lee, Mfg. Co. (Packings), 916 8th St., Louisville, Ky.; 13 Astor Pl., New York; San Francisco; Baltimore.
Cook Electric Co. (Soldering coppers), 2700 Southport Ave., Chicago, Ill.
Cook, H. C., Company (Hack saw frames), Ansonia, Conn.
Cook, H. N., Belting Co. (Leather belting), 401 Howard St., San Francisco, Cal.
Cook Motor Co., The (Gasoline engines), Spring & Gruber Sts., Delaware, O.
Cook & Chick Co. (Firing tools), 315 Union Park Court, Chicago, Ill.
Cook & Riley (Waste and wipers), 313 N. Dearborn St., Chicago, Ill.
Cooper Brass Works, Ogdensburg, N. Y.
Cooper, C. & G., Co., The (Steam and gas engines), Mt. Vernon, O.; New York; Pittsburgh; Dallas.
Cooper Flexible Transmission Co., Inc. (Universal joints), 1723 Eighth Ave., Brooklyn, N. Y.
Co-Operative Foundry Co. (Laundry heaters), Lincoln & West Aves., Rochester, N. Y.
Cooper Sanitary Mfg. Co. (Pipe joint cement, etc.), 34th and Chestnut Sts., Philadelphia.
Coppus Engineering Corporation (Blowers, ventilators, turbines), 6 Fennimore Road, Worcester, Mass.; New York; Philadelphia; Pittsburgh; Chicago; Cleveland.
Corbin Screw Corp. (Screws, etc.), New Britain, Conn.
Corcoran, A. J., Inc. (Well supplies), 761 Jersey Ave., Jersey City, N. J.
Cordesman-Rechtin Co. (Woodworking mach'y), 215 Butler St., Cincinnati, O.
Cordley & Hayes (Fibre buckets, etc.), 7-9 Leonard St., New York, N. Y.; 323 W. Randolph St., Chicago.
Corinth Machinery Co. (Engines, boilers, mach'y), Corinth, Miss.
Cork Insert Co. (Pulleys, etc.), 164 Federal St., Boston 9, Mass.
Corley-De Wolfe Co. (Pipe unions), 323 Pine St., Elizabeth, N. J.
Corliss Supply & Mfg. Co. (Boiler compounds, etc.), 1906 Olive St., St. Louis, Mo.
Cornell Belting Co. (Leather belting), 162 W. Austin Ave., Chicago, Ill.
Cornell, W. G. (Irrigation systems), 4th Ave. & 17th St., New York, N. Y.
Cornell & Underhill (Pipe and bends), Spring and Greenwich Sts., New York, N. Y.
Corning Glass Co. (Gage glasses), Corning, N. Y.
Cornwell Quality Tools Co., The (Forged tools), Cuyahoga Falls, Ohio.
Corr, Patrick & Sons, Inc. (Waste), Trenton Ave., Oakdale and Tucker Sts., Philadelphia, Pa.
Corry Wrench Co. (Agricultural wrenches), Corry, Pa.
Cortland Grinding Wheels Corp. (Grinding wheels), Chester, Mass.; Cortland, N. Y.
Cortland Specialty Co., The (Belt dressing), Cortland, N. Y.
Cortland Welding Compound Co. (Welding compound), Cortland, N. Y.
Cory, Chas., & Son, Inc. (Metal hose), 183 Varick St., New York, N. Y.
Cote Bros. Mfg. Corporation (Renewable fuses), 124 W. Lake St., Chicago, Ill.
Coulter-Curtis Screw Co., Inc. (Screws), 17 Gull St., Buffalo, N. Y.
Coulter & McKenzie Machine Co., The (Power presses), Water & Golden Hill Sts., Bridgeport, Conn.
Couse & Bolten, Inc. (Leather belting), 42-44-46 Lafayette St., Newark, N. J.; 42 Bond St., New York; 300 Colt Bldg., Paterson, N. J.
Covington Machine Co., Inc. (Punches, shears, engines), Covington, Va.; Uniontown, Pa.
Cowan, Andrew, & Co., Inc. (Leather belting), 421-423 W. Main St., Louisville, Ky.
Cowan Mfg. Co. (Closet seats), 116-118 Mendota St., Pittsburgh, Pa.
Cowles Tool Co. (Milling cutters), 2086 W. 110th St., Cleveland, O.
Cox, Abram, Stove Co. (Heating boilers), American & Dauphin Sts., Philadelphia, Pa.
Cox Bros. Mfg. Co., Inc. (Welding and cutting equipment), 406 No. Pearl St., Albany, N. Y.; 161 W. 64th St., New York.
Cox, S. J. (Screwdrivers), Franklin, Pa.
Cox, J. Fillmore (Pipe bending machines, etc.), Bayonne, N. J.
Cox & Sons Co., The (Pipe threading mach'y), Bridgeton, N. J.; Lafayette Bldg., Philadelphia.
Coxsackie Wheel & Mfg. Co. (Polishing wheels), Coxsackie, N. Y.
Coyne & Delany Co. (W. C. tanks, seats, etc.), 832 Kent Ave., Brooklyn, N. Y.
Crafts, Arthur A., & Co. (Diamond pointed tools), 125 Summer St., Boston, Mass.
Craig, David (Sewer castings, etc.), 70 Broad St., Boston, Mass.
Craley, C. C., Manufacturing Co. (Boring attachments), Shillington, Pa.
Cramp, Wm. & Sons, Ship & Engine Building Co., The (Bearing metals, solder, etc.), Richmond and Norris Sts., Philadelphia, Pa.
Crampton-Farley Brass Co. (Plumbers' specialties), 221 Main St., Kansas City, Mo.
Crandall Packing Co. (Packings), Palmyra, N. Y.; 6 Church St., New York. (Branches in principal cities.)
Crane Co. (Plumbers' and steamfitters' supplies), 836 S. Michigan Ave., Chicago, Ill. Branches in principal cities. **(See index to advertisement, pages 7, 8 and 9.)**
Crane Enamelware Co. (Sanitary plumbing ware), Chattanooga, Tenn.
Crane, James W., Co., Inc. (Oils, greases, etc.), 23-27 N. Pier St. (Hamilton Ferry), Brooklyn, N. Y.
Crane Packing Co., The (Piston packing), 1800 Cuyler Ave., Chicago, Ill.; 53 Park Place, New York; 414 Scanlan Bldg., Houston, Tex.
Crane Puller Co. (Wheel puller), 54 Lake St., Arlington, Mass.
Crane, Wm. M., Co. (Gas appliances), 18 E. 41st St., New York, N. Y.
Cranford Oilstone Works (Oil stones), Cranford, N. J.
Crawford Company (Pipe fittings), 3220 West 31st St., Chicago, Ill.; 44 N. 4th St., Philadelphia.
Crawford, L. M., Asbestos Co. (Pipe covering), 1901 Clay St., Denver, Colo.
Crawford & McCrimmon Co. (Mining equipment), Brazil, Ind.
Creamer Glass Works, The (Oil cup glasses, etc), Millville, N. J.
Creasy Rotary Filer Co., The (Gin saw filers), Ballinger, Tex.
Crescent Belt Fastener Co., Inc. (Belt fasteners), 247 Park Ave., New York, N. Y.; 32 Front W., Toronto.
Crescent Machine Co., The (Woodworking mach'y), 96 Columbia St., Leetonia, O. (See index to advertisement, pages 7, 8 and 9.)
Crescent Tool Co. (Pliers, wrenches, etc.), Jamestown, N. Y.
Crescent Truck Co. (Factory trucks), Lebanon, Pa.
Crescent Washing Machine Co. (Metal washing machines), Beechwood Ave., New Rochelle, N. Y.; 136 W. Lake St., Chicago, Ill.
Cressman, N. C., Company (Pipe fittings), Drexel Bldg., Philadelphia, Pa.
(See index to advertisement, pages 7, 8, and 9.)
Cresson-Morris Co. (Power transmission mach'y), Allegheny and 18th Sts., Philadelphia, Pa.
Cribben & Sexton Co. (Laundry heaters), 680 No. Sacramento Blvd., Chicago, Ill.
Crilly Mercury Anti-Friction Metal Corp (Bearing metal), Jersey City, N. J.
Crist & Schilken Company (Shower stall doors), 500 37th St., Pittsburgh, Pa.

Crocker Chair Co. (Closet seats and chairs), Sheboygan, Wis.
Crocker-Wheeler Electric Mfg. Co. (Motors and dynamos), Ampere, N. J.; Birmingham, Baltimore, Boston, Chicago, Cincinnati, Cleveland, New York, Pittsburgh, Philadelphia, Newark, San Francisco, Syracuse.
Crockett, Wm. P. & Co. (Pipe cutters), 312 S. Green St., Chicago, Ill.
Crogan Mfg. Co. (Measuring tapes), 27 Franklin St., Bangor, Me.
Croker National Fire Prevention Engineering Co. (Fire protection supplies), 22 W. 30th St., New York, N. Y.
Croll, Jesse G., & Son (Pipe joint cement), 2326 Germantown Ave., Philadelphia, Pa.
Croll-Reynolds Co., Inc. (Air pumps, etc.), 95 Liberty St., New York, N. Y.
Cromley, Wm. (Radiator tongs, etc.), Lewisburg, Pa.
Cronk & Carrier Mfg. Co., The (Punches, chisels, etc.), Montour Falls, N. Y.
Crookston, Wm. H., & Bro., Inc. (Plumbers' cement), 2449 3rd Ave., New York, N. Y.
Crosby-Hessel Co. (Heating specialties), 410 So. 3rd St., Minneapolis, Minn.
Crosby Steam Gage & Valve Co. (Power plant supplies), 40 Central St., Boston, Mass.
Cross Bros. Co., Inc. (Leather belting), 112-114 Mill St., Rochester, N. Y.
Cross Engineering Co. (Sheet metal products), Carbondale, Pa.
Crowder Bros. Automatic Sprinkler Co., 2018 Locust St., St. Louis, Mo.
Crowe Mfg. Corporation, The (Electric hand saws), 133 East Third St., Cincinnati, O.
Crowell, D. J. (Swages and shapers), 61 The Terrace, Buffalo, N. Y.
Crowell, F. G. (Flue cleaners), 61 Terrace St., Buffalo, N. Y.
Crowell Mfg. Co. (Blowers and pumps), 319 Franklin Ave., Brooklyn, N. Y.
Crown Die & Tool Co. (Stocks, dies, etc.), 2634 No. Keeler Ave., Chicago, Ill.
Crown Fuel Saver Co. (Fuel economizer), Richmond, Ind.
Crown Mfg. Co., The (Boiler compounds), 7016 Euclid Ave., Cleveland, O.
Crown Pipe & Foundry Co., The (Cast iron pipe), Jackson, O.
Cudell, F. E. (Plumbing traps), 10013 Detroit Ave., N. W., Cleveland, O.
Cullen-Atkinson Co. (Industrial ovens), 1122 Allyn St., Hartford, Conn.
Cullman Wheel Co. (Pump jacks), 1346 Altgeld St., Chicago.
Culm-Burn Equipment Co., Inc. (Fuel economizers), 7th & Chestnut Sts., Philadelphia, Pa.
Cumberland Steel Co. (Steel), Cumberland, Md.
Cumming, David, Portable Forge Works (Forges and blowers), 1615 Walnut St., Chicago, Ill.
Cummings Filter Co., The (Water filters), 27th and Liberty Sts., Pittsburgh, Pa.; 205 Bond Bldg., Washington, D. C.; 817 S. 2d St., Springfield, Ill.
Cuneo Press, Inc., The (Supply house catalogs), 455 W. 22d St., Chicago, Ill.
Cunningham, Christopher, Co. (Tubular boilers), 437 Greenpoint Ave., Brooklyn, N. Y.
Currie Mfg. Co. (Truck casters), 2016 W. Lake St., Chicago, Ill.
Curry, J. W., Co. (Cotton belting), 2615 Cummins St., Cincinnati, O.
Curtin, A. F., Valve Co. (W. C. fittings, etc.), 76 Ship Ave., Medford, Mass.
Curtin-Hebert Co., Inc. (Grinding wheel dressers), Gloversville, N. Y.
Curtis Bay Copper & Iron Works, 17 Guilford Ave., Baltimore, Md.
Curtis Machine Corp. (Woodworking machinery), Jamestown, N. Y.
Curtis Pneumatic Mach'y Co. (Compressors and Hoists), 1901 Kienlen Ave., St. Louis, Mo.
Curtis Saw Co. (Circular saws), 1504 Kienlen Ave., St. Louis, Mo.
Curtis Specialty Co., 406 Van Ness Bldg., Salt Lake City, Utah.
Curtis & Curtis Co., The (Pipe tools and mach'y), 188 Garden St., Bridgeport, Conn.
Cushman Chuck Co. (Chucks), 806 Windsor St., Hartford, Conn.; New York; San Francisco; Boston; Chicago. (See index to advertisement, pages 7, 8 and 9.)
Cutler-Hammer Mfg. Co. (Electric specialties), 12th & St. Paul Sts., Milwaukee, Wis.; New York, Chicago, Pittsburgh, Philadelphia, Cleveland, Boston, Cincinnati, Detroit, St. Louis.
Cutler & Proctor Stove Co. (Laundry heaters), Peoria, Ill.
Cyclone Fence Co. (Steel fencing), Waukegan, Ill.; Cleveland; Fort Worth, Texas; Newark, N. J.
Cyclone Grate Bar Co. (Boiler grates), 9 Grimes St., Buffalo, N. Y.

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D. G. C. Trap & Valve Co., Inc. (Steam heating specialties), 296 Madison Ave., New York, N. Y.
D. & L. Nipple Mfg. Co. (Pipe nipples), 345 W. Austin Ave., Chicago, Ill.
D. & T. Mfg. Co. (Heating specialists), 3001 La Salle St., Saint Louis, Mo.
Dahlquist Mfg. Co. (Copper tanks and boilers), 40 W. 3d St., Boston, Mass.
Dail Steel Products Co. (Chemical closets), 835 E. Main St., Lansing, Mich.
Dake Engine Co. (Engines, hoists, etc.), Grand Haven, Mich.
Dallas Brass & Copper Co. (Tubing), 820 Orleans St., Chicago, Ill.
Dallas Waste Mills (Cotton waste), T. & N. O. Ry., Dallas, Tex.
Dallett Company (Pneumatic tools), 165 W. Clearfield St., Philadelphia, Pa.
Dalton-Ingersoll Mfg. Co. (Plumbers' supplies), 365 Atlantic Ave., Boston, Mass.
Dalton Tool Corp. (Lathes, etc.), 82 Willow Ave., New York, N. Y.
Damascus Bronze Co. (Bearings), South Ave. and Sturgeon St., Pittsburgh, Pa.
Damascus Mfg. Corp. (Cutting oils), E. 93rd St. and Cassius Ave., Cleveland, O.; Chicago, Ill.
Damascus Steel Products Corp. (Small tools), 13th St. and 14th Ave., Rockford, Ill.
Dampney Company of America (Boiler coating), Hyde Park, Boston, Mass.
Danberg, C. A., Co., The (Plumbers' brass goods), New Britain, Conn.
Dangler Stove Co., Div. American Stove Co. (Soldering furnaces), 5017 Perkins Ave., Cleveland, O.
Danielson, J. P. Co., Inc. (Wrenches and pliers), Jamestown, N. Y.
Danly Machine Specialties Co., Inc. (Die sets), 2130 So. 52nd Ave., Cicero, Ill.
Danville Iron & Steel Corp. (Power shears), Danville, Pa.
Danzer Metal Works (Sheet metal goods), Hagerstown, Md.
Darby Steel Equipment Co. (Steel lockers), 1922 Germantown Ave., Philadelphia, Pa.
Darcoid Company, The (Mechanical rubber goods), 55 Warren St., New York, N. Y.
Dargent, Chas. (Glass floats), 360 Crescent St., Brooklyn, N. Y.
Darley & Co., W. S. (Water works equipment), 2810 West Washington Blvd., Chicago, Ill.
Darlings' Sheet Metal Works, Walton, N. Y.
Darling Valve & Mfg. Co. (Well supplies), Williamsport, Pa.; Commercial Trust Bldg., Philadelphia; 122 S. Michigan Ave., Chicago.
Dart, E. M., Mfg. Co. (Pipe fittings), 134 Thurber Ave., Providence, R. I.; Toronto, Canada. (See index to advertisements, pages 7, 8 and 9.)
Darwin & Milner, Inc. (Steel), 1260 W. 4th St., Cleveland, O.
Dash Mfg. Co. (Bath curtains), 56 Suffolk St., New York, N. Y.
Dauber-Kratsch Co. (Grinding machines), Oshkosh, Wis.
Daum Fuse & Electric Mfg. Co. (Fuses), 1159 Hodgkiss St., Pittsburgh, Pa.
Davenport Locomotive Works (Cranes), Davenport, Iowa.
Davenport Machine Tool Co. (Automatic screw machine), 167 Ames St., Rochester, N. Y.
Davey Company, The (Friction board and oakum), 165 Laidlaw Ave., Jersey City, N. J.
Davidson Fan Co. (Ventilating fans), Newton, Mass.
Davidson Heating & Construction Co. (Heating appliances), Hanover, Pa.
Davidson, M. T., Co. (Steam pumps), 154 Nassau St., New York, N. Y.; branch offices in principal cities.
Davis Boring Tool Co. (Boring tools), 3718-24 Forest Park Blvd., St. Louis, Mo.
Davis Engineering Corp. (Steam traps, water heaters, etc.), 90 West St., New York, N. Y.
Davis, G. M., & Son (Tanks), Palatka, Fla.
Davis, G. M., Regulator Co. (Heating and power specialties), 422 Milwaukee Ave., Chicago, Ill.; branch offices in principal cities.
Davis-Hansen Pump Co. (Pumps), Oshkosh, Wis.; St. Paul, Minn.
Davis Instrument Mfg. Co., Inc. (Hydrometers, etc.), 110 W. Fayette St., Baltimore, Md.
Davis, John C. (Leather washers, etc.), 77 South Ave., Rochester, N. Y.
Davis Keyseater Company (Keyseating machines), 255 Mill St., Rochester, N. Y.
Davis & Farnum Mfg. Co. (Gas plant equipment), Waltham, Mass.; 8 Oliver St., Boston, Mass.
Davis & Hemphill (Screw machine products), Elkridge, Md.
Davis & Thompson Co. (Cylinder boring machine), 57th Ave. and Mitchell St., West Allis, Wis.
Davison, N. C., Gas Burner & Welding Co. (Gas burners), 2939 Smallman St., Pittsburgh, Pa.

Day & Night Water Heater Co. (Solar heaters), Monrovia, Cal.
Day-Fan Electric Company (Motors), Dayton O.
Dayton Bronze & Bearing Co. (Metal bearings), 303 Keowee St., Dayton, O.
Dayton Car Wrench Co. (Car wrenches), Dayton, Ohio.
Dayton-Dowd Co. (Pumps), Quincy, Ill.
Dayton Irrigation Company, The (Irrigation systems), 261 High St., Dayton, O.
Dayton Malleable Iron Co., The (Malleable specialties), Dayton, O.
Dayton Pipe Coupling Co. (Pipe fittings), Edmunds St. & R. R., Dayton, O.
Dayton Pneumatic Tool Co. (Pneumatic hammers, etc.), Miami Chapel Rd., Dayton, O.; 1019 Marquette Bldg., Chicago; 133 Greenwich St., New York; Philadelphia; Pittsburgh.
Dayton Pump & Mfg. Co. (Pumps, etc.), Webster St., Dayton, O.
Dayton Safety Ladder Co. (Safety ladders), 121 West 3d St., Cincinnati, O.
De Haven Mfg. Co. (Box strapping), 50 Columbia Heights, Brooklyn, N. Y.
De Laval Steam Turbine Co. (Pumps and turbines), 300 Nottingham Way, Trenton, N. J.
De Lhorbe, Wm. (Septic tanks), Oregon, Ill.
DeWeese, F. M., Co. (Lifting jacks), Chillicothe, O.
Dealers Steam Packing Co., The (Packings), Palmyra, N. Y.
Dean Bros. Steam Pump Works (Pumps, etc.), 323 W. 10th St., Indianapolis, Ind.
Dean Hill Pump Co. (Pumps), St. Charles and 23rd Sts., Anderson, Ind.
Dean Metal Co. (W. C. seats and medicine chests), 108 Pine St., St. Louis, Mo.
Dean & Robinson (Screwdrivers), 11 Warren St., New York, N. Y.
Dearborn Brass Co. (Plumbing brass goods), 805 B Ave. West, Cedar Rapids, Ia.
Dearborn Chemical Company (Boiler compounds, etc.), 310 S. Michigan Ave., Chicago, Ill.; 299 Broadway, New York.
Decatur Foundry Furnace & Machine Co. (Friction clutches), Decatur, Ind.
Decatur Pump Company (House pumps), 634 E. Cerro Gordo St., Decatur, Ill.
Dececo Co. (Bath and lavatory fittings), 76 Batterymarch, Boston, Mass.
Decker Mfg. Co. (Blow torches), 251 Elm St., Newark, N. J.
Deckert, V. F., Mfg. Co. (Water heaters, etc.), 402 Plymouth Bldg., Minneapolis, Minn.
Deegan, E. J., Mfg. Co. (Damper regulators), 291 E. 134th St., New York, N. Y.
Defender Automatic Regulator Co. (Draft gages), 308 So. 8th St., St. Louis, Mo.
Defiance Lantern & Stamping Corp. (Lanterns), 33 Hebard St., Rochester, N. Y.
Defiance Machine Works (Woodworking mach'y), Defiance, O.
Defiance Packless Valve & Mfg. Co. (Radiator valves), 1214 Park Pl., Quincy, Ill.
Degen Belting Co., L. P. (Leather belting), 260 Mission St., San Francisco, Cal.
Delaware Hard Fibre Co., Ltd. (Fibre products), Wilmington, Del.; 560 W. Monroe St., Chicago; Detroit, Philadelphia, New York, St. Louis, Pittsburgh, Springfield, New Haven, Toledo.
Delaware Metal Refinery (Metals), 829 N. Leithgow St., Philadelphia, Pa.
Delaware Tool Co. (Plumbers' tools), 3300 Market St., Wilmington, Del.
Delta File Works (Files), 4837 James St., Bridesburg, P. O., Philadelphia, Pa.
Deming Co., The (Pumps), Salem, Ohio.
Dempster Mill Mfg. Co. (Pumping equipment), Beatrice, Neb.; Kansas City; Omaha; Sioux Falls, S. D.; Denver; Oklahoma City; Amarillo, Tex.
Dent Hardware Co. (Stall fittings), Bangor, Pa.
Denver Rock Drill Mfg. Co. (Drills), E. 39th Ave. and Williams St., Denver, Colo.
Desmond-Stephan Mfg. Co. (Injectors), Urbana, O.
D'este Co., Julian (Power plant equipment, etc.) 26 Canal St., Boston, Mass.; 565 W. Washington Blvd., Chicago, Ill.; 180 Washington St., New York.
Destructor Co., The (Garbage burners), 111 Broadway, New York, N. Y.
Detex Watchclock Corp. (Watchmen's clocks), 4147 E. Ravenswood Ave., Chicago, Ill.
Detrick, M. H., Co. (Boiler arches), 140 S. Dearborn St., Chicago, Ill.
Detroit Belt Lacer Co. (Belt lacers and hooks), 3947-51 A St., Detroit, Mich.; 549 W. Washington Blvd., Chicago; 215 N. 15th St., Philadelphia, Pa.; 16 Hudson St., New York.
Detroit Brass & Malleable Works (Pipe fittings and valves), 1177 Holden Ave., Detroit, Mich.; 66 Cliff St., New York.
Detroit Copper & Brass Rolling Mills (Copper and brass goods), 174 S. Clark Ave., Detroit, Mich.; 111-13 N. Jefferson St., Chicago; 413-15 N. 3rd St., St. Louis, Mo.; Mercantile Library Bldg., Cincinnati, O.
Detroit Edge Tool Works (Machine knives), 3000 E. Woodbridge St., Detroit, Mich.
Detroit Gear & Machine Co. (Gears), 670 E. Woodbridge St., Detroit, Mich.
Detroit Graphite Co. (Paints), 518 Twelfth St., Detroit; branch offices in principal cities.
Detroit Hoist & Machine Co. (Hoists and cranes), 8201 Morrow St., Detroit, Mich. (See index to advertisement, pages 7, 8 and 9.)
Detroit Lead Pipe Works (Lead products), 600 W. Larned St., Detroit, Mich.
Detroit Lubricator Co. (Engine room supplies), 5842 Trumbull Ave., Detroit, Mich.; New York; Chicago; San Francisco.
Detroit Machine Tool Co. (Machine tools), 6545 St. Antoine St., Detroit, Mich.
Detroit Metal Spinning Co. (Copper floats), 625 Monroe Ave., Detroit, Mich.
Detroit Nut Co., Inc. (Nuts and engine driven outfits), 2456 Hubbard Ave., Detroit, Mich.
Detroit Oak Belting Co. (Belting), 3362 Wight St., Detroit, Mich.; Metropolitan Bldg., Atlanta, Ga.; 327 Second Ave., Pittsburgh.
Detroit Power Screwdriver Co. (Screwdriving machines), 419 Riopelle St., Detroit, Mich.
Detroit Range Boiler & Steel Barrel Co. (Boilers and tanks), 2475 24th St., Detroit, Mich.; New York; Chicago; St. Louis; San Francisco; Trenton, N. J.
Detroit Sanitary Supply Co. (Plumbers' supplies), 5905 2nd St., Detroit, Mich.
Detroit Screw Works (Screws, bolts, nuts, etc.), 1477 E. Atwater St., Detroit, Mich.
Detroit Seamless Steel Tubes Co. (Boiler flues), West Warren and Wyoming, Detroit, Mich.; Endicott Bldg., St. Paul.
Detroit Stamping Co. (Milling spacers), 3445 W. Fort St., Detroit, Mich.
Detroit Stoker Company (Stokers), General Motors Bldg., Detroit, Mich., New York, Pittsburgh, Cleveland, Cincinnati, Chicago, Philadelphia, Atlanta, Boston, Baltimore, Montreal.
Detroit Torch & Mfg. Co. (Blow torches), 12057 Cardoni Ave., Detroit, Mich.
Deverall Perfection Mfg. Co. (Oilers and lamps), 62 Schenectady Ave., Brooklyn, N. Y.
De Vilbiss Mfg. Co., The (Painting machines and equipment), 3700 Detroit Ave., Toledo, O.
Devlin, Thomas, Manufacturing Co. (Pipe fittings, etc.), 23rd and Sedgley Ave., Philadelphia.
De Walt Products Company (Woodworking machinery), Leola, Lancaster Co., Pa.
De Waters Safety Latch Co., Inc. (Boiler door latches), 110 W. 40th St., New York, N. Y.
Dexter, I. H., Co., Inc. (Shaft couplings), Goshen, N. Y.
Dexter Metal Mfg. Co. (Lockers, shelving, etc.), Front and Arch Sts., Camden, N. J.; 114 Liberty St., New York, N. Y.
Diamant Tool & Mfg. Co., Inc. (Punches and dies), 91-97 Runyon St., Newark, N. J.
Diamond Calk Horse Shoe Co. (Wrenches), 4632 Grand Ave., Duluth, Minn.
Diamond Chain & Mfg. Co. (Chains), Kentucky Ave. & West St., Indianapolis, Ind.
Diamond Drill Carbon Co. (Mechanical diamonds), 63 Park Row, New York, N. Y.
Diamond Expansion Bolt Co. (Bolts, etc.), 90 West St., New York, N. Y.; branch offices in principal cities.
Diamond Iron Works (Mill and transmission mach'y), 2nd & 18th Ave., No., Minneapolis, Minn.
Diamond Machine Co. (Grinding machines), 9 Codding St., Providence, R. I.
Diamond Machine Co. (Electric hoists), Monongahela, Pa.
Diamond Power Specialty Corp. (Flue cleaners), 10340 Oakland St., Detroit, Mich.; Chicago, Philadelphia, Buffalo, Montreal, New York, Boston, Pittsburgh, St. Louis, San Francisco, Kansas City, Cleveland, Cincinnati.
Diamond Rubber Co., Inc. Mechanical rubber goods), South Main St., Akron, O.; New York, Philadelphia, Chicago, St. Louis, San Francisco, Atlanta, Boston, Dallas, Kansas City, Los Angeles, Seattle.
Diamond Saw & Stamping Works (Hack saws), 347 Davey St., Buffalo, N. Y.
Diamond State Fibre Co. (Fibre goods), Bridgeport, Pa.; branches in principal cities.
Diamond Tool & Die Works (Lathe tools), 438 Asylum St., Hartford, Conn.
Dick Bros., Inc. (Plumbing brass goods), 3rd & Buttonwood Sts., Reading, Pa.
Dick, R. & J., Co., Inc. (Belting), Passaic, N. J.; 111 St. Clair Ave., Cleveland; branches in principal cities.

Dicke Tool Co., The (Linemen's tools), Downers Grove, Ill.; New York; Los Angeles; Chicago.
Dickerman Hoist Mfg. Co. (Hoists and Trolleys), 872 East 72nd St., Cleveland, Ohio.
Dickey Belting Co. (Leather belting), Lewiston, Me.
Dickey-Grabler Co., The (Steel Stamps), 10310 Madison Ave., Cleveland, Ohio.
Dickey, W. S., Clay Mfg. Co. (Septic tanks), New York Life Bldg., Kansas City, Mo.
Dickinson, Thos. L. (Emery wheel dressers), 36 Gold St., New York, N. Y.
Dickow, Fred C., Machinery Co. (Index centers), 2105 W. Lake St., Chicago, Ill.
Diehl Mfg. Co. (Electric motors), Elizabeth, N. J.; 149 Broadway, New York; 1305 Race St., Philadelphia; 566 Atlantic Ave., Boston; 1017 W. Jackson Blvd., Chicago.
Dienelt & Eisenhardt, Inc. (Power hammers), 1304 No. Howard St., Philadelphia, Pa.
Diener, Geo. W., Mfg. Co. (Hardware, tools, sheet metal goods), 400 Monticello Ave., Chicago, Ill. (See index to advertisement, pages 7, 8 and 9).
Dietz, Fred, Co., The (Mill trucks), 1102 Madison Ave., Indianapolis, Ind.
Dietz, R. E., Co. (Lanterns and lamps), 60 Laight St., New York, N. Y.
Dietzgen, Eugene, Co. (Engineers' instruments), 166 W. Monroe St., Chicago, Ill.; New York, N. Y.
Dikeman Mfg. Co., The (Hand tools), Norwalk Conn.
Dillon, D. M., Steam Boiler Works (Steam boilers), Fitchburg, Mass.
Dillon Electric Co., The (Electric grinders), 1712 11th St., N. E., Canton, O.
Dings Magnetic Separator Co. (Magnets and separators), 671 Smith St., Milwaukee, Wis.; branch offices in principal cities.
Direct Separator Co. (Power plant fittings), 228 So. Geddes St., Syracuse, N. Y.
Dissolene Company (Boiler Compounds), Hempstead, N. Y.
Disston, Henry, & Sons, Inc. (Saws), Unruh and Milnor Sts., Philadelphia, Pa.; Boston; 570 W. Washington Blvd., Chicago; Cincinnati, New Orleans, Memphis, Vancouver, San Francisco, Seattle, Portland, Spokane.
Divine Bros. Co. (Truck wheels), 102 Whitesboro St., Utica, N. Y.
Division Smelting & Refining Co. (Babbitt and solder), 836 W. Kinzie St., Chicago, Ill. (See index to advertisements, pages 7, 8 and 9.)
Dixie Logging Tool Co. (Logging tools), James & Elizabeth Sts., Chattanooga, Tenn.
Dixie Mfg. Co. (Exhaust fans), Russell St. & B. & O. R. R., Baltimore, Md.
Dixie Metal Products Sales Co. (Radiator cabinets, etc.), 1014½ No. 28th St., Birmingham, Ala.
Dixie Packing Co., The (Packings), Grant Bldg., Atlanta, Ga.
Dixon, Joseph, Crucible Co. (Graphite products), Jersey City, N. J.; 347 John Hancock Bldg., Boston; 68 Reade St., New York; 53 W. Jackson Blvd., Chicago; Philadelphia; St. Louis; San Francisco; Buffalo.
Dixon Valve & Coupling Co. (Hose couplings), Emerald and Hagert Sts., Philadelphia, Pa.
Dlugosch, L. S. (Hot water circulating valve), Storm Lake, Iowa.
Do More Chair Company (Factory chairs), Elkhart, Ind.
Doane Mfg. Co. (File Handles), Allston Sta., Boston, Mass.
Dobbie Foundry & Machine Co. (Hoisting apparatus), Portage Road, Niagara Falls, N. Y.
Dobbins Core Drill Co. (Core drills), 81 Sixth St., New York.
Dobbins Mfg. Co. (Sheet metal products), North Saint Paul, Minn.
Dobson, William (Molders' tools), 211 Spencer St., Canastota, N. Y.
Dockson, C. H., Co. (Welding equipment), 161 E. Columbia St., Detroit, Mich.
Dodds, Alexander, Co. (Woodworking mach'y), 451-3 Monroe Ave., N W., Grand Rapids, Mich.
Dodge Manufacturing Corp., Mishawaka, Ind.; Chicago, New York, Boston, Newark, Philadelphia, Pittsburgh, Atlanta, Cincinnati, Houston, Minneapolis, Seattle, San Francisco.
Doelger & Kirsten (Power shears), 3015-37 Chambers St., Milwaukee, Wis.
Doermann-Roehrer Co. (Belt dressing, etc.), 450 E. Pearl St., Cincinnati, O.
Doerr Glass Co. (Gage glasses, etc.), Vineland, N. J.
Dole Valve Co., The (Heating specialties), 1923-33 Carroll Ave., Chicago, Ill.
Dolge, C. B., Co., The (Chemical pipe cleaner), Westport, Conn.
Domestic Engine & Pump Co. (Engines and pumps), Shippensburg, Pa.
Domestic Stoker Corp. (Boiler Stokers), 7 Dey St., New York, N. Y.
Donaldson Iron Co. (Cast iron pipe), Emaus, Pa.

Dondero, Chas. J. (Laundry trays), 242 E. 6th St., Portland, Ore.
Donley Mfg. Co., 10585 Quincy St., Cleveland, O.
Donnelley, R. R., & Sons Co. (Jobbers' catalogs), 731 Plymouth Ct., Chicago, Ill.
Donner Steel Co., Inc. (Steel mill products), 47[illegible] Abbott Road, Buffalo, N. Y.
Donovan, D. A. (Pipe hangers), 6 Market St., Auburn, N. Y.
Donovan, John J. (Plumbing specialties), 22 Church St., Boston 11, Mass.
Donovan Packing & Rubber Co., Inc. (Packings), 211 Bainbridge St., Philadelphia, Pa.
Doody Vapor Heating Co., Inc. (Heating specialties), 46 Cornhill St., Boston, Mass.
Doolittle, L. G. (Flue cleaners, etc.), 1 Sturges St., Binghamton, N. Y.
Dorward Pump Co. (Deep well pumps), 417 Market St., San Francisco, Cal.
Double Blast Mfg. Co. (Soldering furnaces, etc.), North Chicago, Ill.
Double Rotary Sprinkler Co. (Lawn sprinklers), Coca Cola Bldg., Kansas City, Mo.
Dougherty, M. J., Corp. (Pipe bends, etc.), 25th and Washington Sts., Philadelphia, Pa.
Dougherty, Owen T. (Sewer covers), 2423 University Ave., Saint Paul, Minn.
Douglas, John, Co., The (Plumbing supplies), 71st St. and C. H. & D. Ry., Cincinnati, O.
Douglas, W. & B. (Pumps), 160 William St., Middletown, Conn.; 87 Warren St., New York.
Dover Boiler Works (Boilers, etc.), Dover, N. J.
Dover Mfg. Co., Dover, O.
Dover Stamping & Mfg. Co. (Sheet metal goods), 385 Putnam Ave., Cambridge, Mass.
Dow Pump & Diesel Engine Co. (Pumping engines), Robert Dollar Bldg., San Francisco, Cal.
Dowd, F. J., Knife Works (Machine knives), Beloit, Wis.; 50 East 42nd St., New York.
Downs, I. G. (Belt drives), 1447 Blake St., Denver, Colo.
Down Tool Works, Inc. (Twist drills), Fleetwood, Pa.
Downey, T. F., Boiler Works (Grate bars), 2600 W. Grand Ave., Chicago, Ill.
Drackett Chemical Company, The (Chemical drain pipe cleaner), 5020 Spring Grove Ave., Cincinnati, O.
Dragon Mfg. Co., The (Leather packings), Marietta, O.
Draher, John (Power presses), 70 N. Elm St., Waterbury, Conn.
Drake Hardware Co., Friendship, N. Y.
Drake Lock Nut Co. (Lock nuts), 2440 E. 75th St., Cleveland, O.
Drake Electric Hoist Co. (Electric hoists), Friendship, N. Y.
Draper Mfg. Co., The (Valves, fittings, tools, etc.), Port Huron, Mich.; Petrolea, Canada.
Draper Mfg. Co. (Steel barrels), E. 91st St. and Crane Ave., Cleveland, O.; 203 Pan American Bldg., New Orleans.
Dreis & Krump Mfg. Co. (Sheet metal machines), 7400 Loomis St., Chicago, Ill.
Dreses Machine Tool Co. (Lathes and drills), 227-29 W. McMicken Ave., Cincinnati, O.
Dresser, S. R., Mfg. Co. (Oil well supplies), Bradford, Pa.
Drew, C., & Co. (Small tools), Kingston, Mass.
Driggs Ordnance & Mfg. Corp. (Engine lathes), 19 W. 44th St., New York.
Driscoll Transmission Corp. (Variable transmission), 416 W. 33rd St., New York, N. Y.
Drop Forging Co. of New York, The (Wrenches), West Side Ave. and Fisk St., Jersey City, N. J.
Druid Oak Belting Co., Inc., The (Belting), 111 E. Lombard St., Baltimore, Md.
Dryden Rubber Co., 1014 So. Kildare Ave., Chicago, Ill.
Drying Systems, Inc. (Steam traps), 1800 Foster Ave., Chicago, Ill.
Dual Automatic Valve Co. (Automatic valves), Rock Island, Ill.
Du Bois, F. N., Company, Inc. (Flush valves), 152 Riverside Ave., New York, N. Y.
Du Bois Iron Works (Pumps, engines, etc.), Du Bois, Pa.
Dudgeon, Richard (Hydraulic jacks, etc.), 24-26 Columbia St., New York, N. Y.
Dudley Preheater Co. (Water heaters), 5618 16th St., Detroit, Mich.
Duff Mfg. Co., The (Jacks, etc.), Preble Ave., Pittsburgh, Pa.
Duffy Manufacturing Co. (Tools), 214-216 W. Grand Ave., Chicago, Ill.
Dunbrack Tool & Die Co., Inc., The (Oil burners, cocks, etc.), 108 Alder St., Waltham, Mass.
Dunham, C. A., Co. (Heating specialties), 450 E. Ohio St., Chicago; branches in principal cities.
Dunham Company, The (Water heaters), Berea, O.
Dunker Supply Co. (Pattern shop supplies), 1820 2nd St., S. E., Canton, O.

Dunn Mfg. Co. (Pipe wrenches), Oxnard, Cal.
Dunn, W. E., Mfg. Co. (Concrete mixers), Holland, Mich.
Dunning Compressor Co. (Air compressors), Ashburn & Hegerman Sts., Holmesburg, Philadelphia, Pa.
Dunning & Boschert Press Co., Inc., The (Hydraulic mach'y), 365 W. Water St., Syracuse, N. Y.; 25 W. Broadway, New York.
Dunning, W. D. (Core and sand mixers), 329 W. Water St., Syracuse, N. Y.
Dunton, M. W., Co., The (Soldering flux), 670 Eddy St., Providence, R. I.
Duo Mfg. Co., Long Island City, N. Y.
Duplex Condenser & Radio Corp., The (Gas engine governors), 36 Flatbush Ave. Extension, Brooklyn, N. Y.; Detroit, Chicago.
Duplex Mfg. Co. (Sewer cleaning machines), 214 No. 13th St., Philadelphia, Pa.
Duplex Mfg. Co. (Pumps and cylinders), 62d St. & Butler Ave., Superior, Wis.
Duplex Mfg. & Foundry Co. (Sewer castings), Elyria, O.
Duplex Moulding Sander Co. (Sanding machines), Hornell, N. Y.
Du Pont de Nemours, E. I., Powder Co. (Explosives), 10th & Market Sts., Wilmington, Del. Branches in principal cities.
Du Pont de Nemours, E. I., & Co., Inc., Fabrikoid Div. (Mine tubing), Newburgh, N. Y.
Du Pont de Nemours, E. I., Powder Co., By-Product Division (Metals, salts, oil tar, etc.), Wilmington, Del.
Du Pont de Nemours, E. I., & Co., Inc., Chemical Products Division (Chemicals and chemical products), Parlin, N. J.
Du Pont Everdur Company, Inc. (Metal), Wilmington, Del.
Duquesne Burner Service Co. (Gas burners), Aspinwall St., Pittsburgh, Pa.
Durabilt Steel Locker Co. (Steel lockers, etc.), 425 Arnold Ave., Aurora, Ill.
Durabla Mfg. Co., (Gaskets, packings, etc.), 114 Liberty St., New York, N. Y.; 3615 Iron St., Chicago, Ill.; Dallas, San Francisco, Pittsburgh.
Durable Wire Rope Co. (Wire rope), 95 Pearl St., Boston, Mass.; 43 South St., New York, N. Y.; 165 W. Lake St., Chicago, Ill.
Durametallic Corporation (Packings and gaskets), 806 Cobb Ave., Kalamazoo, Mich.
Durand Scientific Glass Co. (Gauge glasses), Vineland, N. J.
Durand Steel Locker Co. (Metal furniture), 76 W Monroe St., Chicago, Ill.; Detroit; New York.
Durant Mfg. Co. (Counting machines), 655-665 Buffum St., Milwaukee, Wis.
Durbin Malleable Iron Foundries Co. (Pipe joints), 21st St. and Bond Ave., East St. Louis, Ill.
Durbrow & Hearne Mfg. Co. (Counting machines), 12 Wooster St., New York, N. Y.
Duriron Co., Inc. (Pipe and fittings), N. Findlay St., Dayton, O.; branches in principal cities.
Durkee-Atwood Co. (Radiator cement), 40 Wilder St., Minneapolis, Minn.
Duro Pump & Mfg. Co. (Pumps), 537 E. Monument St., Dayton, O.
Durst Mfg. Co., Inc. (Rubber plumbing specialties), 466 Broadway, New York, N. Y.
Durwyllan Co. (Woven belting), 37 Kentucky Ave., Paterson, N. J.
Duryea Mfg. Co. (Cotton belting, dressing, etc.), Avenue C and 2nd St., Bayonne, N. J.; 113 Pearl St., Boston.
Dust Recovering & Conveying Co. (Dust collectors), Cleveland, Ohio.
Dutton, C. H., Co. (Engines and boilers), Grace St., Kalamazoo, Mich.
Dwight Mfg. Co. (Power plant specialties), 565 W. Washington Blvd., Chicago.
Dwyer Equipment Co. (Heating appliances), 4534 W. North Ave., Chicago, Ill.
Dyer Co., The (Welding apparatus), 155 Brookline St., Cambridge, Mass.

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Eagle Belting Co. (Leather belting), 558 W. Randolph St., Chicago, Ill.
Eagle Counter & Leather Co. (Leather belting), Hulbert & Freeman Sts., Cincinnati, O.; Indianapolis; New Orleans, La.; Columbus, Dayton.
Eagle Emery & Corundum Wheel Co., The (Abrasive wheels), 2519 Fulton St., Chicago, Ill.
Eagle Foundry Co. (Water heaters, etc.), Belleville, Ill.
Eagle Lock Co. (Padlocks), Terryville, Conn.
Eagle Mfg. Co. (Oilers, etc.), Wellsburg, W. Va.
Eagle Oil Works Co. (Lubricating oils), Hippodrome Annex, Cleveland, O.
Eagle Oil & Supply Co. (Packings, lubricants), 44-45-46 India St., Boston, Mass.
Eagle-Picher Lead Co., The (Plumbers' lead goods), 1006 Broadway, Cincinnati, O.; Joplin, Mo.; Chicago; Buffalo; Baltimore; St. Louis.
Eagle Saw Works, (Circular saws), Chattanooga, Tenn.
Eagle Smelting & Refining Works (Babbitt metal), 233 Broadway, New York, N. Y.
Eagle Tank Co. (Tanks, etc.), 2432 N. Crawford Ave., Chicago, Ill.
Earle Gear & Machine Co. (Metal sawing machines), Stenton and Wyoming Aves., Philadelphia, Pa.
East Penn Foundry Co. (Cast iron plumbing goods), Macungie, Pa.
Eastern Asbestos Company (Asbestos products), 287 Tockwotton St., Providence, R. I.
Eastern Bolt & Nut Co. (Bolts, nuts, screws, etc.), East Providence, R. I.
Eastern Felt Co. (Mechanical felts), Canal St., Winchester, Mass.
Eastern Foundry Co., The (Cast iron plumbing goods), Boyertown, Pa.
Eastern Machinery Co., The (Friction clutches), 250 Ashmun St., New Haven, Conn.
Eastern Machinery & Equipment Co., Inc. (Leather packings), Commercial Trust Bldg., Philadelphia, Pa.
Eastern Metal Works, 156 Broadway, Brooklyn, N. Y.
Eastern Specialty Mfg. Co. (Rubber tank bulbs), 1553 Dickson Ave., Scranton, Pa.
Eastern Tube & Tool Co., Inc. (Chucks), 594 Johnson Ave., Brooklyn, N. Y. (See index to advertisement, pages 7, 8 and 9.)
Eastman Mfg. Co. (Hose couplings), Manitowoc, Wis.
Eastwood, Benjamin, Co. (Power trans. mach'y), 300-322 Straight St., Paterson, N. J.
Eastwood Wire Mfg. Co. (Power plant fittings), Joralemon St., Belleville, N. J.
Easy Mfg. Co. (Pipe pushers), David City, Neb.
Eaton Electric Furnace Co. (Elec. furnaces), 8 Porter St., Taunton, Mass.
Eberhard Mfg. Co., The (Screws and nuts), 2734 Tennyson Road, S. E., Cleveland, O. (See index to advertisement, pages, 7, 8 and 9.)
Ebinger, D. A., Sanitary Mfg. Co. (Urinals and closets), W. Town St. and H. V. R. R., Columbus, Ohio.
Eckenroth Valve & Mfg. Co. (Valves), 20th and Allegheny Sts., Philadelphia, Pa.
Eclat Rubber Co., The (Hose), Cuyahoga Falls, O.
Eclipse Fuel & Engineering Co. (Gas furnaces), 814 So. Main St., Rockford, Ill.
Eclipse Interchangeable Counterbore Company (Interchangeable Tools), 7338 Woodward, Detroit, Mich.
Eclipse Pulley Covering Co., The (Pulley covering), 434 Plymouth Ct., Chicago, Ill.; Detroit.
Eclipse Seat Co. (Closet seats), Far Rockaway, N. Y.
Eclipse Specialty Mfg. Co. (Belt dressing, pulley covering, etc.), 4531 Ravenswood Ave., Chicago, Ill. (See index to advertisement, pages 7, 8 and 9.)
Eclipse Wood Pulley Co., Inc., The (Wood pulleys), Berlin, Pa.
Eco Clock Co. (Watchmen's clocks), 23 Beach St., Boston, Mass.
Economic Specialty Co. (Pipe clamps), 104 Merrimac St., Boston, Mass.
Economy Baler Co. (Baling presses), Ann Arbor, Mich.; Boston, Chicago, New York, Philadelphia, Syracuse; Atlanta; Columbus; Indianapolis.
Economy Electric Lantern Co. (electric lanterns), 549 W. Washington Blvd., Chicago, Ill.
Economy Engineering Co. (Hoists and cranes), Willoughby, Ohio.
Economy Engineering Co. (Portable elevators), 2647 W. Van Buren St., Chicago, Ill.; 527 Canadian Pacific Bldg., New York.
Economy Faucet Co. (Steam water heaters), 86 Weybosset St., Providence, R. I.
Economy Fuse & Mfg. Co. (Fuses), Greenview Ave. at Diversey Parkway, Chicago, Ill.; branch offices in principal cities.
Economy Grate & Equipment Co. (Grates), 460 East 34th St., New York, N. Y.
Economy Heater Co. (Water heaters), 105 W. Monroe St., Chicago, Ill.
Economy Lubricating Co. (Lubricants), Dorrance and Temple Sts., Charlestown Dist., Boston, Mass.
Economy Mfg. Co. (Hose connections, etc.), 5350 Germantown Ave., Philadelphia, Pa.
Economy Mfg. Works, 140 E. 10th St., Oswego, N. Y.
Economy Oil Co. (Lubricants), 541 W. Roosevelt Rd., Chicago, Ill.
Economy Plumber Co. (Drain pipe cleaner), 398 Broadway, New York, N. Y.
Economy Products Co. (Keyway cutters), 50 Spring St., Newark, N. J.
Economy Pumping Machinery Co. (Power pump), 122-124 Curtis St., Chicago, Ill.
Economy Scale Remover Co. (Boiler compounds), Chicago Heights, Ill.

Economy Stove Co., (Water heaters), 4001 W. 25th St., Cleveland, O.
Economy Vapor Heating Co. (Vacuum valves), 1115 Dodge St., Omaha, Neb.
Economy Welding Machine Co. (Welding outfits), 5 W. 20th St., Kansas City, Mo.
Eddy Engineering Co. (Vacuum valves), Alpena, Mich.
Eddy, R. M., Foundry Co. (Sewer castings), 372 West Grand Ave., Chicago, Ill.
Eddy Valve Co. (Valves), Waterford, N. Y.; 2 Rector St., New York.
Edelmann, E., & Co. (Auto specialties), 2332 Logan Blvd., Chicago, Ill.
Edge, Frank, & Co. (Band saw blades), Graphic Arts Bldg., Ottawa Ave., W., Grand Rapids, Mich.
Edge Moor Iron Co. (Power boilers), Edge Moor, Del.; New York; Chicago; Boston; Pittsburgh.
Edgecombe Co., The, (Pipe cement), 210 S. 2nd Ave., Cuyahoga Falls, O.
Edgecombe, J. C., & Co. (Pump valves), 149 Broadway New York, N. Y.
Edgemont Machine Co., The (Friction clutches), 220v Home Ave., Dayton, O.
Edison Electric Appliance Co. (Water heaters), 5660 Taylor St., Chicago, Ill.
Edlund Machinery Co., Inc. (Drilling machines), Cortland, N. Y.
Edna Brass Mfg. Co., The (Steam brass goods), 528 Reading Rd., Cincinnati, O.
Edson Mfg. Corp. (Diaphragm pumps), 375 Broadway, Boston, Mass.
Edward Mfg. Co. (Plumbers' tools), 146 Broadway, Brooklyn, N. Y.
Edward Valve & Mfg. Co., The (Valves, etc.), East Chicago, Ind.; New York, San Francisco.
Edwards, H. D., & Co. (Tackle blocks), 167-181 Larned St., E., Detroit, Mich. (See index to advertisements, pages 7, 8 and 9.)
Edwards, Joseph, & Co. (Centrifugal pumps), 827 E. 9th St., New York City.
Edwards Mfg. Co., 430 Eggleston Ave., Cincinnati, O.
Edwardsville Brass Works (Brass goods), Edwardsville, Ill.
Efficiency Engineering Co. (Heating appliances), 17 Montrose St., Boston, Mass.
Ehret Magnesia Mfg. Co. (Magnesia and asbestos products), Valley Forge, Pa.; Philadelphia; New York; Chicago.
Eichman, J. C., Mfg. Co. (Plumbers' woodwork), Bush & Wicomico Sts., Baltimore, Md.
Eierman Floor Scraper Co. (Plumbers' tools), 1971 Fulton St., Brooklyn, N. Y.
Eisele, Louis F., & Son (Shower stall doors), 2356 Albion St., Philadelphia, Pa.
Eisendrath Glove Co. (Workmen's gloves), 2001 Elston Ave., Chicago, Ill.
Ekern-Turk Mfg. Co., Inc. (Garage specialties), Pipestone, Minn.
Elastic Tip Co. (Closet seat bumpers), 370 Atlantic Ave., Boston, 9, Mass.
Elaterite Paint & Mfg. Co. (Paints), Des Moines, Iowa.
Elco Tool & Screw Corp. (Wood screws), 1800-1824 Broadway, Rockford, Ill.
Elecdrive Mfg. Co., Inc. (Electric tools), S. A. & K. Bldg., Syracuse, N. Y.
Electric Arc Cutting & Welding Co. (Electric welders), 152 Jelliff Ave., Newark, N. J.
Electric Blower Co. (Blowers), 352 Atlantic Ave., Boston, 9, Mass. (See index to advertisement, pages 7, 8 and 9.)
Electric Boiler Corp. (Boilers, etc.), 491 Main St., Cambridge, Mass.
Electric Hammer Corp. (Electric hammers), Louisville, Ky.
Electric Hand Saw Co. (Electric Saws), Seattle, Wash.
Electric Heating & Mfg. Co. (Electric water heaters), 6th No. and Harrison Sts., Seattle, Wash.
Electric Hose & Rubber Co. (Hose), 12th & Dure Sts., Wilmington, Del.; New York; Philadelphia; New Orleans; Boston; Chicago.
Electric Machinery Mfg. Company (Motors), 1331 N. E. Tyler St., Minneapolis, Minn.
Electric Specialty Co. (Motors and dynamos), Stamford, Conn.
Electric Specialty Mfg. Co. (Pipe locater), 610 4th Ave., Cedar Rapids, Iowa.
Electric Tachometer Co., The (Tachometers), 310 N. 11th St., Philadelphia, Pa.
Electric Utilities Co. (Electric hammers), Tyler Bldg., Louisville, Ky.
Electric Water Sterilizer & Ozone Co. (Water filters, etc.), Scottdale, Pa.
Electric Wheel Co. (Trucks and wheels), Quincy, Ill.
Electro Engineering Co., Inc. (Solder pots), Richmond Hill, N. Y.
Electro Galvanizing Co. (Pipe nipples), 2218 Flournoy St., Chicago, Ill.
Electro Magnetic Tool Co. (Portable electric grinders and drills), 1830 S. 52nd Ave., Cicero, Ill.
Electrol Agency (Fuel oil burners), 2818 Locust St., St. Louis, Mo.

Elgin Tool Works, Inc. (Lathes, etc.), 67-69 No. State St., Elgin, Ill.
Elite Mfg. Co. (Jacks), Ashland, O.
Elgin National Watch Co. (Tachometers), 35 E. Wacker Drive, Chicago, Ill.
Elite Pottery Co. (Plumbing goods), Enterprise Ave., Trenton, N. J.
Eljer Co. (China plumbing fixtures), Ford City, Pa.
Elkay Mfg. Co. (Plumbing fixtures), 4710 Arthington St., Chicago, Ill.
Elkhart Brass Mfg. Co. (Hose fittings, etc.), 1302 W. Beardsley Ave.; Elkhart, Ind.
Elkhart Foundry & Machine Co., 4554 Broadway, Chicago, Ill.
Elkhart Iron Works (Grates and sewer castings), 2002-2020 S. Main St., Elkhart, Ind.
(See index to advertisement, pages 7, 8 and 9.)
Elkhart Rubber Works (Mechanical rubber goods), Oakland Ave., Elkhart, Ind.
Ellert, C. H., Mfg. Co. (Belt dressing, etc.), 1200 So. 1st St., Evansville, Ind.
Ellicott Company (Power plant specialties), Jeannette, Pa.; branches in principal cities.
Elliott Water Heater Co. (Water heaters), 1246 Myrtle Ave., Brooklyn, N. Y.
Ellis Drier & Elevator Co., The (Steam traps), Roosevelt Rd. and Talman St., Chicago, Ill.
Ellis & Ford Mfg. Co. (Pipe cutters), 38 Piquette St., Detroit, Mich.
Ellison, Lewis M. (Pressure gauges), 214 W. Kinzie, Chicago, Ill.
Elmer, H. N. (Life saving devices), 1641 Monadnock Bldg., Chicago, Ill.
Elmes, Chas. F., Engineering Works. (Hydraulic mach'y), 1009 Fulton St., Chicago, Ill.
Elmhurst Cement Laundry Tray Co., 9846-58 "D" St., Oakland, Cal.
Elmore, Walter D. (Babbitt metal), Bessemer Bldg., Pittsburgh, Pa.
Elterich, Chas., Co. (Taps and dies), 187 Lafayette St., New York, N. Y.
Elton Company (Hydro-pneumatic water systems), 410 Court St., Allentown, Pa.
Elwell-Parker Electric Co., The (Factory trucks), 4223 St. Clair Ave., N. E., Cleveland, O.
Elyria Iron & Steel Co. (Steel tubing), 232 E. 131st St., Cleveland, O.; Peoples Gas Bldg., Chicago.
Embury Mfg. Co. (Lanterns), Warsaw, N. Y.
Emerson Electric Mfg. Co., The (Fans, blowers, lathes), 2024-32 Washington Ave., St. Louis, Mo.; 50 Church St., New York.
Emerson Pump & Valve Co., Inc. (Steam pumps), Alexandria, Va.
Emerson-Scheuring Tank Co. (Oil storage tanks), Singleton and The Belt, Indianapolis, Ind.
Emerson & Sack, 77 Haverhill St., Boston, Mass.
Emery Candle Co. (Candles, etc.), June & Long Ivorydale, Cincinnati, O.
Emmert Mfg. Co. (Vises, tool cabinets, etc.), Waynesboro, Pa.
Emory Foundry Co. (Cast iron soil pipe and fittings), Anniston, Ala. Gulf States Pipe Corp., Anniston, Ala., exclusive sales agents.
Empire Brass Mfg. Co., The (Brass fittings), 10301 Berea Rd., N. W., Cleveland, O.
Empire Brush Works (Machine brushes), 557 W. Monroe St., Chicago, Ill.
Empire China Works, 156 Greene St., Brooklyn, N. Y.
Empire Level Mfg. Co. (Levels), 315 First Ave., Milwaukee, Wis.
Empire Machine Works (Woodworking mach'y), Mt Morris, N. Y.
Empire Mfg. Co. (Lumber trucks), Quincy, Ill.
Empire Metal Co. (Metals), 820 E. Water St., Syracuse, N. Y.
Empire Tire & Rubber Corp. (Mechanical rubber goods), Trenton, N. J.; 601 W. Randolph St., Chicago; 40 Rector St., New York; Ellicott Sq., Buffalo; 246 3rd Ave., Pittsburgh, Pa.
Enamel Products Co., The, Eddy Road and Taft Ave., Cleveland, O.
Endura Mfg. Co. (Packings), 11th & Washington Ave., Philadelphia, Pa.; 909 Majestic Bldg., Detroit; Sharon Bldg., San Francisco.
Energy Elevator Co. (Elevators), 214 New St., Philadelphia, Pa.
Engberg's Electric & Mechanical Works (Dynamos, etc.), St. Joseph, Mich.
Engel Mfg. Co. (Water pressure regulators), 214 Temple St., Syracuse, N. Y.
Engelhard, Charles (Thermometers), 30 Church St., New York, N. Y.
Engineering Company of Philadelphia (Safety water columns), Harrison Bldg., Philadelphia.
Engineering Supply Co. (Boiler compound), 3307 York Road, Philadelphia, Pa.
Ensign-Bickford Co., The (Blasting fuses), Simsbury Conn.
Ensign Refining Co. (Lubricants, etc.), 10703 Quebec Ave., S.E., Cleveland, O.
Enterprise Brass Works (Plumbers' brass goods), Peck St., Muskegon Heights, Muskegon, Mich.

Enterprise Co., The (Steam engines), Columbiana, O.; New York; Minneapolis.
Enterprise Iron Works (Lift truck platforms), 24th & Yandes Sts., Indianapolis, Ind.
Enterprise Machine Tool Co., The (Punch and drill presses), 9 So. Clinton St., Chicago, Ill.
Enterprise Mfg. Co., 815 Syms St., West Hoboken, N. J.
Enterprise Oil Company (Lubricants), 164 Chandler St., Buffalo, N. Y.
Equipment Mfg. Co. (Factory trucks), Leader-News Bldg., Cleveland, O.; New York.
Equitable Meter & Mfg. Co. (Gas meters), Lexington Ave., Pittsburgh, Pa.
Erb, W. B. (Pumps), 331-333 S. Clinton St., Chicago, Ill.
Erby Mfg. Co., The (Painting machines and equipment), 121 West Grand Ave., Chicago, Ill.
Erdle Perforating Co. (Perforated metals), 171 York St., Rochester, N. Y.
Erie-Buffalo Tube Co., The (Brass tubing), Erie, Pa.
Erie City Iron Works (Boilers, etc.), East St. & N. Y. C. R. R., Erie, Pa.
Erie Clutch & Pulley Co. (Transmission equipment), 2014-18 Holland St., Erie, Pa.
Erie Engine Works (Steam engines), Walnut and 13th Sts., Erie, Pa.
Erie Foundry Co. (Stokers, drop hammers, etc.), Erie, Pa.
Erie Pump & Engine Works, Inc. (Pumps and engines), 150 Glenwood Ave., Medina, N. Y.
Erie Tool Works, The (Steamfitters' tools), 11th and French Sts., Erie, Pa.
Erie White Metal Co. (Metals), 838 E. 10th St., Erie, Pa.
Eriez Stove & Mfg. Co. (Gas appliances), 18th & Raspberry Sts., Erie, Pa.
Ernst, Chas. K. (Sidewalk hoists), 1001 E. Ferry St., Buffalo, N. Y.
Ernst & Co. (Engineering specialties), 44 Oakland Ter., Newark, N. J.
Errington Mechanical Laboratory (Chucks and dies), Broadway and John St., New York, N .Y.
Ertel, George, Co. (Paper balers), 515-523 Kentucky St., Quincy, Ill.
Esco Seat Co. (Water closet seats), Mattapan, Mass.
Esda Mfg. Co. (Water heaters), 280 Madison Ave., New York, N. Y.
Espen-Lucas Machine Works (Saws and mach'y), Front St. and Girard Ave., Philadelphia, Pa.
Essex Brass Corp. (Steam brass goods), 2000 Franklin St., Detroit, Mich.
Essex Foundry (Brass and iron plumbing goods), Murray St., cor. Ave. "D," Newark, N. J.
Essex Rubber Co. (Mechanical rubber goods), Beakes & May Sts., Trenton, N. J.; 258 Broadway, New York.
Esskay Mfg. Co. (Electric Hand Saws), 622 McCormick Bldg., Chicago, Ill.
Essmueller Mill Furnishing Co. (Friction clutches) 1222 S. 8th St., St. Louis, Mo.
Estabrooks, R., Sons (Plumbers' iron ware), 204 W. 1st St., South Boston, Mass.
Estate Stove Co., The (Water heaters), Hamilton, O.
Estes Mills (Waste), 1290 Stafford Rd., Fall River, Mass.
Estes, E. B., & Sons (Plumbers' woodwork), 362 5th Ave., New York, N. Y.
Esty Sprinkler Co., Laconia, N. H.
Estwing Mfg. Co. (Hammers and hatchets), 19th Ave. & 9th St., Rockford, Ill.
Etna Company (Twist drills), 228 High St., Taunton, Mass.
Etna Machine Co. (Punching presses), Maplewood & M.C., Ry., Toledo, O.
Etna Mfg. Co. (Swaging machines), Toledo, O.
Etsweiler, William, & Co. (Leather belting), 335 West Green St., Philadelphia, Pa.
Euclid Crane & Hoist Co., The (Cranes and hoists), Chardon Rd., Euclid, O.
Euclid Mfg. Co. (Laundry trays), Paden City, W. Va.
Eureka Brass Works Co., Inc. (Valves and fittings), 1040 Hulbert Ave., Cincinnati, O.
Eureka Fire Hose Mfg. Co. (Hose), 50 Church St., New York, N. Y.
Eureka Packing Co. (Packings), 78-80 Murray St., New York, N. Y.
Eureka Smokeless Furnace Co. (Fuel economizers), 3224 N. Halsted St., Chicago, Ill.
Eureka Water Heater Co. (Water heaters), 25 W. Lake St., Chicago, Ill.
Eustis, J. P., Mfg. Co. (Bathroom fittings), 16 Ames St., Boston 39, Mass.
Evans, F. H. (Roofers' equipment), 33 Hewes St., Brooklyn, N. Y.
Evans Friction Cone Co. (Countershafts), Newton Highlands, Mass.
Evans, John E. (Pump valves), Nutley, N. J.
Evans', John, Sons, Inc. (Leather working mach'y), 506 N. 13th St., Philadelphia, Pa.
Evans, Morgan (Vise stands), 74 No. Main St., Pittston, Pa.
Evansville Arbor Press Co. (Presses), 112 Pine St., Evansville, Ind.
Evansville Leather & Belting Co. (Leather belting), 429-431 Sycamore St., Evansville, Ind.
Evansville Tool Works (Hand tools), 701 W. Maryland St., Evansville, Ind.
Evenheat Co. (Heating boilers), 532 W. Adams St., Chicago, Ill.
Ever-Glow Co. (Glass cleaner), Rockefeller Bldg., Cleveland, O.
Ever Hot Heater Co., The (Water heaters), 5211 Wesson Ave., Detroit, Mich.
Ever Ready Gas Heater Valve Co. (Gas heater lighter), 231 Grand River East, Detroit, Mich.
Ever Ready Heater Co. (Water heaters), 803 W. 6th St., Los Angeles, Cal.
Everett, A., & Son (Metallic letters), No. 5 Havens Ave., Auburn, N. Y.
Everhart Brass Works (Plumbing brass goods), 422 Penn Ave., Scranton, Pa.
Everhot Manufacturing Co. (Torches and soldering irons), Maywood, Ill.
Everite Pump & Manufacturing Co. (Pumps), Lancaster, Pa.
Everitt Co., The (Screws, bolts, etc.), 273 Franklin St., Boston 9, Mass.
Everlasting Valve Co. (Valves), 1 Exchange Pl., Jersey City, N. J.
Evers, Henry A., Co. (Steel stamps), 44 Washington St., Providence, R. I.
Everson Filter Co. (Water filters), 647 N. Green St., Chicago, Ill.
Evinrude Motor Co. (Gasoline engines), 27th & Florence Sts., Milwaukee, Wis.
Evinrude Pump Company (Pumps), 3131 Shields Ave., Chicago, Ill.
Excello Mfg. Co., 5005 Euclid Ave., Cleveland, O.
Ex-Cell-O Tool & Manufacturing Co., Inc. (Valve grinders), 1469 E. Grand Blvd., Detroit, Mich.
Excelo Valve Co., Inc. (Basin cocks, valves, etc.), 236 W. 55th St., New York, N. Y.
Excelsior Leather Washer Mfg. Co., Inc. (Washers), 720 Chestnut St., Rockford, Ill. (See index to advertisements, pages 7, 8 and 9.)
Excelsior Pulley Co., Inc. (Wood pulleys), Cuba, N. Y.
Excelsior Steel Ball Co. (Bearings), Military Road, Buffalo, N. Y.
Excelsior Tool & Machine Co. (Metal working tools), 30th & Ridge Ave., East St. Louis, Ill.
Excelsior Valve Co. (Valves, packings), 106-108 Fulton St., New York, N. Y.
Excelso Specialty Works (Plumbing specialties), 119 Clinton St., Buffalo, N. Y.; New York; Chicago.
Exeter Brass Works (Brass goods), 10 Railroad Ave., Exeter, N. H.
Exolon Company (Abrasives), Blasdell, N. Y.

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F. P. Screw Co., The (Machine screws), 2921-23 E. 79th St., Cleveland, Ohio.
F. & H. Foundry Co. (Bronze bushings), Tiffany Ave., Newark, N. J.
Fabreeka Belting Co. (Belting), 120 High St., Boston, Mass.; 523 Eighth Ave., New York.
Fabrice, Geo., Jr. (Electric babbitt pots), 4750 Sheridan Road, Chicago, Ill.
Fabric Fire Hose Co. (Hose), 127 Duane St., New York, N. Y.
Faessler, J., Mfg. Co., The (Boilermakers' tools), 215 N. 5th St., Moberly, Mo.
Fafnir Bearing Co., The (Ball bearings), Booth St., New Britain, Conn.
Fair Haven Marble & Marbleized Slate Co. (Plumbing Slate), Fair Haven, Vt.
Fairbanks Co., The (Valves, trucks), 393-99 Lafayette St., New York, N. Y.; Boston and Pittsburgh.
Fairbanks, E. & T., Co. (Scales, valves, etc.), St. Johnsbury, Vt. (Selling agents: The Fairbanks Co., and Fairbanks, Morse & Co.)
Fairbanks Engineering Corp. (Electric house pumps), 166 Union St., Worcester, Mass.
Fairbanks, Morse & Co. (Gas engines, pumps, etc.), 900 S. Wabash Ave., Chicago, Ill.; Detroit, Cincinnati, Cleveland, Indianapolis, New York, St. Louis, St. Paul, Louisville, Bakersfield, Cal.; Minneapolis, Kansas City, Omaha, Denver, San Francisco, Los Angeles, Salt Lake City, Portland, Seattle, Spokane, Philadelphia.
Fairfacts Company (Bathroom fittings), 236 West 14th St., New York, N. Y.
Fairfield Engineering Co. (Conveyors), Marion, Ohio.
Fairgrieve Belting Co. (Leather belting), 242 Church St., Lowell, Mass.
Fairmont Mining Machinery Co. (Mining machinery), Fairmont, W. Va.
Fairmount Foundry & Engineering Works (Power transmission machinery), 43 2nd Ave., Woonsocket, R. I.
Fairmount Tool & Forging Co., The (Tools), 10611 Quincy Ave., Cleveland, O.

Falk Corp., The (Gears), foot of 30th St., Milwaukee, Wis.
Falls Clutch & Machinery Co. (Power transmission mach'y), Cuyahoga Falls, Ohio.
Famasco Distributing Co. (Oilers), 694 Main St., Buffalo, N. Y.
Famous Mfg. Co. (Baling presses), East Chicago, Ind.
Fanning, Ben, Co., Inc., 84 Montgomery Alley, Rochester, N. Y.
Farley, J. W., Sleeve & Hanger Co. (Pipe sleeves and hangers), 3748 E. 71st St., Cleveland, O.
Farnan Brass Works Co., The (Stop and waste cocks), 1104 Center St., N. W., Cleveland, O.
Farnham Mfg. Co. (Overhead trolleys), 30 Indiana St., Buffalo, N. Y.
Farquhar, A. B., Co., Ltd. (Boilers and steam engines), York, Pa.
Farrand, Hiram A. (Spring rules and self-clinching nails), Berlin, N. H.
Farrar Pump & Machinery Co. (Pumps), 318 Granite Bldg., St. Louis, Mo.
Farrar & Trefts, Inc. (Boilers, etc.), 67 Perry St., Buffalo, N. Y.
Farrel Foundry & Machine Co. (Speed reducers), 344 Vulcan St., Buffalo, N. Y.
Fate-Root-Heath Co. (Lawnmower grinders), Plymouth, O.
Faul, William J., Co. (Grease and oil cups), 487 Broadway, New York, N. Y.
Faul & Timmins (Gaskets), 149 Oak St., Buffalo.
Faultless Caster Co. (Truck and furniture casters), 1521 No. Garvin St., Evansville, Ind.
Favorite Stove & Range Co., The (Laundry heaters), Piqua, O.
Fawcus Machine Co. (Gears and castings), 2818 Smallman St., Pittsburgh, Pa.; branches in principal cities.
Fay, J. A., & Egan Co. (Woodworking machinery), 34th and Robertson Sts., Cincinnati, O.; branches in principal cities.
Fay & Scott (Lathes), Dexter, Me.
Fearon-Tillotson Foundry Co. (Grates and grate bars), 1743 N. Kenton Ave., Chicago, Ill.
Federal Asbestos Co. (Packings), Paterson, N. J.
Federal Bearings Co., Inc., The (Ball bearings), Poughkeepsie, N. Y.
Federal Belting Co. (Canvas belting), 506 Stewart Bldg., Baltimore, Md.
Federal Brass Works (Valves and gauges), 3100 S. Kedzie Ave., Chicago, Ill.
Federal Brass Mfg. Co. (Brass fittings), 1761 E. 27th St., Cleveland, O.
Federal Electric Co. (Fuses, sirens, etc.), 8700 So. State St., Chicago, Ill.; branches in principal cities.
Federal Foundry Supply Co., The (Foundry supplies), 2639 E. 79th St., Cleveland, O.; Milwaukee, San Francisco, Seattle.
Federal Gauge Co. (Pressure gauges, electrical control), 564 W. Adams St., Chicago.
Federal-Huber Co. (Plumbing supplies), 127 No. Sangamon St., Chicago, Ill.
Federal Machine and Welder Co. (Welders), Dana Ave., Warren, O.; Cleveland, Detroit, Chicago, Indianapolis, Minneapolis, Niagara Falls, Boston, New York, Philadelphia, Pittsburgh, San Francisco.
Federal Malleable Co. (Foundry supplies), W. Allis, Wis.
Federal Metal Hose Corp. (Metallic tubing), 45 N. Division St., Buffalo, N. Y.
Federal Metallic Packing Co. (Packings), 48 Hanover St., Boston, Mass.
Federal-Mogul Corporation (Bearing metals, bronze bars, etc.), 11031 Shoemaker Ave., Detroit, Mich.
Federal Pneumatic Systems, Inc. (Air filters), 127 No. Dearborn St., Chicago, Ill.
Federal Press Co. (Punch Presses), Elkhart, Ind.
Federal Process Co., The (Paints, etc.), 612 Bangor Bldg., Cleveland, O.
Federal Products Corp. (Dial indicators), 15 Elbow St., Providence, R. I.
Federal Rubber Co. of Illinois, Cudahy, Wis.
Federal Steel Fixture Co. (Metal shelving and lockers), 4545 Homer St., Chicago, Ill.
Federal Supply Co., The (Belt fasteners), Fort Worth, Texas.
Federal Tin Co. (Hose clamps), Charles & Barre Sts., Baltimore, Md.
Federal Tool & Alloy Steel Corp. (metals), 62-76 Rutledge St., Brooklyn, N. Y.; Chicago.
Federal Water Heater Co. (Water heaters), 354 So. Los Angeles St., Los Angeles, Cal.
Federal Water Softener Co. (Water softeners and filters), 617 W. Lake St., Chicago, Ill.
Federated Metals Corporation (Bearing metals), 620 W. 41st St., Chicago, Ill.
Fee & Mason Mfg. Co. (Pipe hangers), 81 Beekman St., New York, N. Y.
Fellows Gear Shaper Co., The (Gear cutters), River St., Springfield, Vt.; 444 Book Bldg., Detroit.
Felton, S. A., & Son, Co. (Brushes), Manchester, N. H.
Fenn Mfg. Co., The (Earth augers), N. Main St., Charlotte, Mich.
Fenwick-Reddaway Mfg. Co. (Belting and hose), Paris and Niagara Sts., Newark, N. J.
Ferer, Aaron, & Sons (Wipers and bearing metals), 2000 No. Main St., St. Louis, Mo.
Ferguson, F., & Son (Grates and grate bars), 1122-32 Clinton St., Hoboken, N. J.
Ferguson & Lange Foundry Co. (Grates, boiler castings, etc.), 1039 Willow St., Chicago, Ill.
Fermot Company, The (Electric hammers), 200 Broadway, New York, N. Y.
Ferodo and Asbestos Incorporated (Asbestos products), New Brunswick, N. J.
Ferracute Machine Co. (Sheet metal mach'y), Bridgeton, N. J.
Ferris, Thos. H. (Bibb fasteners), 151 7th Ave., Brooklyn, N. Y.
Ferry Cap & Set Screw Co., The (Screws, etc.), 2151 Scranton Rd., S. W., Cleveland, O.; 419 Book Bldg., Detroit, Mich.
Fess System Co. (Oil burning equipment), 218 Natoma St., San Francisco, Calif.; Seattle; Wichita, Kan.; Houston; Portland, Ore.; Los Angeles, Minneapolis.
Feuser, C., & Son (Air valves), Montclair, N. J.
Fiat Metal Mfg. Co. (Bath tub covers, etc.), 1207 Roscoe St., Chicago, Ill.
Fibre Mfg. Co. (Water closet seats), 3 Temple St. (Charlestown Dist.), Boston, Mass.
Fidelity Electric Co. (Drilling machines), 332-336 No. Arch St., Lancaster, Pa.
Field, Chas. H. (Metal hammer molds), 113 Point St., Providence, R. I.
Field Force Pump Co. (Pumps), Elmira, N. Y.; 127 S. Los Angeles St., Los Angeles, Cal.; Rice Lake, Wis.; Waupaca, Wis.; Sanford, Fla., Houlton, Me.
Field, R. B., & Co. (Washers and packings), 10 Clarence st., Worcester, Mass.
(See index to advertisement, pages 7, 8 and 9.)
Field & Shorb Co., The (Cistern pumps), 133 W. William St., Decatur, Ill.
Filer & Stowell Co., The (Engines and mach'y), 219 Becher St., Milwaukee, Wis.
Files Temperature Control Co., The, 168 Thompson St., Bridgeport, Conn.
Filtrine Mfg. Co. (Water filters), 55 Lexington Ave., Brooklyn, N. Y.
Finley, J. A., Co. (Bench grinders), 119 Brighton Ave., Allston, Mass.
Finn, John, Metal Works (Bearing metal), 384 2d St., San Francisco, Cal.; 470 Colman Bldg., Seattle, Wash.
Fischer, Busmeyer & Maloney Machine Co. (Sanding machines), 440 E. 13th St., Covington, Ky.
Fischer & Hayes Rope & Steel Co. (Wire and manila rope), 816 W. Erie St., Chicago, Ill.
Fischer Machine Works (Mach'y), 1841 Carroll Ave., Chicago, Ill.
Fischer Machine Works (Grooving machines), 310-316 North 11th St., Philadelphia, Pa.
Fischer Special Mfg. Co. (Machine screw products), Morgan & Dover Sts., Walnut Hills, Cincinnati, Ohio.
Fisher Brass Company, The (Brass plumbing goods), Bellefontaine, O.
Fisher Governor Co., The (Governors, valves, etc.), Marshalltown, Ia., 117 No. Dearborn St., Chicago, Ill.
Fisher Leather Belting Co., Inc., The (Leather belting), 325 No. 3rd St., Philadelphia, Pa.
Fisher & Davis Mfg. Co. (Woodcutting machinery), 934 No. 1st Ave., St. Louis, Mo.
Fisher & Norris (Anvils and vises), 37 Fair St., Trenton, N. J.
Fitchburg Steam Engine Co. (Steam engines), Fitchburg, Mass.; Fisher Bldg., Chicago; 39 Cortland St., New York; 924 Samson St., Philadelphia.
Fitler, The Edwin H., Co. (Rope), 517 Arch St., Philadelphia, Pa.; Pittsburgh.
Fitts, Frank E., Mfg. & Supply Co. (Oil filters, cans, etc.), 88 Purchase St., Boston, Mass.
Fitz Water Wheel Co. (Water wheels), Hanover, Pa.; Bourse Bldg., Philadelphia.
Fitzgerald Heat Treating Co. (Gas furnaces), 576 **St. James Ave., Springfield, Mass.**
Fitzgerald Mfg. Co., The (Gaskets), Torrington, Conn.
Fitzgibbons Boiler Co. (Boilers), E. 10th & Dewitt **Sts., Oswego, N. Y.; 47 W. 42d St., New York.**
Fitzsimons Co., The (Shaftings), Youngstown, O.
Flagg, Stanley G., & Co., Inc. (Pipe fittings), 1421 Chestnut St., Philadelphia, Pa.
Flannery Bolt Co., The (Staybolts), Flannery Bldg. Pittsburgh, Pa.
Flannery, P. J., Co. (Steam, water and gas brass **goods), 33 Whiting St., New Britain, Conn.**
Flash Chemical Co. (Hand soap), 160 2d St., Cambridge, Mass.; Chicago; New York; Pittsburgh, Pa.
Flash Sales Corp., The (Wrenches, etc.), 4809 No. Ashland Ave., Chicago, Ill.
Flather Co., Inc. (Machine tools), Nashua, N. H.

Flather Mfg. Co., The (Machine tools), Nashua, N. H.
Fleck Bros. Co., Inc. (Sanitary pottery), 50 No. 5th St., Philadelphia, Pa.
Fleming Machine Co. (Valve grinders), Worcester, Mass.
Fletcher-Terry Co., The (Glass cutters), Forestville, Conn.
Flexible Steel Lacing Co. (Belt lacing), 4607-31 Lexington St., Chicago, Ill. (See index to advertisement, pages 7, 8 and 9.)
"Flexitallic" Gasket Co. (Gaskets), 924 No. 8th St., Camden, N. J.
Flexo Supply Co. (Pipe couplings), 4459 Manchester Ave., St. Louis, Mo. (See index to advertisement, pages 7, 8 and 9.)
Flierl, Christian Co., Inc. (Pulley bushings), 1352 Genesee St., Buffalo, N. Y.
Flint, Warren F., Co. (Flue brushes), 115 Broad St., Boston, Mass.
Flint & Walling Mfg. Co. (Pumps), Kendallville Ind.
Flintkote Co. (Roofing), 809 Park Square Bldg., Boston, Mass.; New York, Chicago.
Floral City Heater Co. (Heating boilers), Monroe, Mich.
Florence Stove Co. (Water heaters), Gardner, Mass.
Flor-Floe Co. (Garage Floor Cleaners), Buffalo, N. Y.
Florida Septic Tank Co., Miami, Fla.
Flory, S., Mfg. Co. (Hoisting engines), Main and Market Sts., Bangor, Pa.; 95 Liberty St., New York; Monadnock Block, Chicago; First Natl. Bank Bldg., Pittsburgh.
Flower, Walter L., Steam Specialty Co. (Steam specialties, Buder Bldg., St. Louis, Mo.
Flushovalve Co. (Flush valves), Edgewater, N. J.
Flynn & Emrich Co. (Hand stokers), Holliday and Saratoga Sts., Baltimore, Md.
Foamite-Childs Corp. (Fire extinguishing supplies) Savage-Arms Bldg., Utica, N. Y.
Focht, Geo., Sons (Wheelbarrows, coal and ore buckets), 119 Adams St., Hoboken, N. J.
Foerst, John, & Sons (Fuel oil burners), Berhoff Bldg., Bayonne, N. J.
Foley Saw Tool Co. (Saw filers), 3613 Portland Ave., Minneapolis, Minn.
Follansbee Brothers Co. (Metal sheets), Liberty and 3rd Sts., Pittsburgh, Pa.
Foltz Smokeless Furnace Co. (Smokeless furnaces), 431 So. Dearborn St., Chicago.
Foos Gas Engine Co., The (Gas engines), Monroe & Linden Ave., Springfield, O.; 53 W. Jackson Blvd., Chicago.
Foote Bros. Gear & Machine Co. (Gears), 213 Curtis St., Chicago, Ill.
Foote-Burt Company, The (Drilling machines, etc.), 13000 St. Clair Ave., N. E., Cleveland, O.
Foran Foundry & Mfg. Co. (Manhole covers, etc.), Flemington, N. J.
Forbes, John R., Foundry & Iron Works (Gratebars), 53 Merseles St., Jersey City, N. J.
Forbes & Myers (Electric grinders), 172 Union St., Worcester, Mass.
Ford Chain Block Co. (Chain blocks), N. E. Cor. 2nd and Diamond Sts., Philadelphia, Pa.
Ford Meter Box Co. (Meter boxes), Wabash, Ind.
Ford Motor Co. (Factory tractors), Detroit, Mich.
Ford Regulator Valve Company, Inc. (Regulators and valves), 403 Broome St., New York; 1419 Fisher Bldg., Chicago.
Ford & Kendig Co. (Pipe fittings, hangers, etc.), 1428-30-32 Callowhill St., Philadelphia, Pa.
Ford's Porcelain Works, Inc. (Porcelain and vitreous plumbing ware), Perth Amboy, N. J.
Forest City Bit & Tool Co. (Tools), 1206 Kishwaukee St., Rockford, Ill.
Forged Steel Products Co. (Pliers), Newport, Pa.
Forsberg Mfg. Co. (Hack saw frames, etc.), 200 Cannon St., Bridgeport, Conn.
Forster, John M., Co. (Wood pulleys, leather belting) 110 Mill St., Rochester, N. Y.
Forsyth Metal Goods, East Aurora, N. Y.
Fort Pitt Supply Co. (Plumbing supplies), 316 2nd Ave., Pittsburgh, Pa.
Fort Wayne Engineering & Mfg. Co. (Pumps, compressors, etc.), Fort Wayne, Ind.
Fort Wayne Filter Co. (Water filters), Farmers Trust Bldg., Fort Wayne, Ind.
Fosdick Machine Tool Co., The (Mach. tools), Blue Rock, Apple, Palm & Turrill Sts., Cincinnati, O.
Foskett & Bishop Co., The (Steam traps), Blatchley Ave. and River St., New Haven, Conn.
Foss & Bump, Inc. (Leather belting), 53 Union Ave., Springfield, Mass.
Foster Bolt & Nut Mfg. Co. (Bolts, screws), Union Ave. and E. 72d St., Cleveland, O.
Foster, C. H. (Range boiler stands), Overland Mo.
Foster Engineering Co. (Steam specialties), 109 Monroe St., Newark, N. J.
Foster Flange Wrench Co., 9634 Silk Ave., Cleveland, O.
Foster-Johnson Reamers Co. (Reamers), Elkhart, Ind.
Foster, L. B., Co. (Pipe, rails, etc.), Park Bldg., Pittsburgh, Pa.
Foster Machine Co. (Lathes), W. Beardsley Ave., Elkhart, Ind.
Foster, Merriam & Co. (Truck casters), 31 Cross St., Meriden, Conn.
Foster Pump Works (Pumps), 36 Bridge St., Brooklyn, N. Y.
Foster Sheet Metal Co. (Radiator shields, etc.), 1000 E. Carpenter St., Springfield, Ill.
Fostoria Screw Co. (Screw machine products), Fostoria, Ohio.
Foulds, L. & Son (Leather belting), Hudson, Mass.
Foundry Equipment Co. (Core ovens), 1831 Columbus Rd., Cleveland, O.
Fountain Equipment & Mfg. Co. (Bench vises), 28 Opera Place, Cincinnati, O.
Four-Way Lock Co. (Padlocks), 4900 Lexington Ave., Cleveland, O.
Fouts, C. C., Co., The (Steel shelving), Middletown, O.
Fowden, Wm. T. (Blow-off valves), 3d and Concord Sts., Chester, Pa.
Fowle, John L. (Saws and knives), Woburn, Mass.
Fowler & Wolfe Mfg. Co. (Wall radiators and supports), Bulletin Bldg., Philadelphia, Pa.
Fox, John, & Co. (Cast iron pipe, hydrants, etc.), 233 Broadway, New York, N. Y.
Fox Machine Co. (Metal working machines), 1410 W. Ganson St., Jackson, Mich.
Fox Supply Co. (Eye protectors), Brooklyn, Wis.
Foxboro Co., Inc. (Gages, meters, etc.), Foxboro, Mass.; branches in principal cities.
Fraim, E. T., Lock Co., The (Padlocks), Lancaster, Pa.
France Packing Co., Inc. (Packing), 6524 State Road, Tacony, Philadelphia, Pa.; branches in principal cities.
Francis, Chas. E., Co. (Factory trucks, glue mach'y), Rushville, Ind.
Francis & Co. (Diamond tools), 50 State St., Hartford, Conn.
Frank Bros. Mfg. Co. (Plumbing brass goods), 5 E. 3rd St., New York, N. Y.
Franklin Belting Co. (Leather belting), 141-143 E. South St., York, Pa.
Franklin Brass Foundry (Ferrules and brass nipples), Young St. and Starr Ave., Long Island City, N. Y.
Franklin Cotton Mill Co., The (Cotton belting), Plum and Charles Sts., Cincinnati, O.
Franklin Gas Burner Mfg. Co. (Fuel gas burners), Vine St. and Mitchell Ave., Cincinnati, O.
Franklin Machine Co. (Power trans. mach'y), 189 **Charles St., Providence, R. I.**
Franklin Mfg. Co., The (Asbestos covering, gaskets, etc.), **Franklin, Pa.; 153 Milk St., Boston; 20 E. Jackson Blvd., Chicago; Grand Central Terminal Bldg., New York.**
Franklin Mfg. Co., The (Wire forming mach'y and bolt clippers), Drawer 155, New Haven, Conn.
Franklin Oil & Gas Co. (Oils, carburetors), Bedford, O.; Chicago, Dayton, O., Jersey City, Springfield, Mass., Toledo.
Franklin Paper Stock Co., The (Wiping cloths), Franklin, O.
Franklin Portable Crane & Hoist Co. (Portable cranes), Franklin, Pa.
Franklin Valveless Engine Co. (Engines), Franklin, Pa.; Tulsa, Okla.; Fort Worth, Texas.
Frantz Refrigeration Co. (Drinking fountains), 404-416 No. Front St., Reading, Pa.
Franz-Holbrook Bronze Co. (Bearing metals), Newark, N. J.
Fraser, Warren F., Co., The (Grinding machines), Westboro, Mass.
Frasse, Peter A., & Co., Inc. (Steel products), Grand & Sullivan Sts., New York, N. Y.; Buffalo, N. Y.; Philadelphia.
Frazer Paint Co. (Structural paint), 2475 Hubbard Ave., Detroit, Mich.
Frederick Iron & Steel Co. (Centrifugal pumps), Frederick, Md.
Freas, Francis L., Glass Works, (Thermometers and hydrometers), Conshohocken, Pa. (See index to advertisement, pages 7, 8 and 9).
Fredericksen Company, (Bronze Bearing Metal), 932 So. Water St., Saginaw, Mich. (See index to advertisement, pages 7, 8 and 9.)
Freed Heater Co. (Water heaters), 110 Walnut St., Philadelphia, Pa.
Freeman-Riff Company (Conveying mach'y), Terre Haute, Ind.
Freeport Truck Co. (Factory trucks, etc.), Freeport, Mich.
French Battery & Carbon Co., Madison, Wis.
French Mfg. Co. (Brass and copper tubing), 128 Robbins St., Waterbury, Conn.
French Oil Mill Machinery Co. (Machinery), Piqua, Ohio.
French Rotary Oil Burner Co. (Oil burners), Sebastopol, Cal.
French & Hecht (Truck wheels), Davenport, Iowa.

Frenier, J. H., & Son (Sand pumps), Rutland, Vt.
Fresh Water Pump Co. (Pumps, etc.), Spartanburg, S. C.
Fretz-Moon Tube Co. (Steel pipe), Butler Co. Nat'l Bank Bldg., Butler, Pa.
Fretz, S. S., Jr., & Co. (Pipe nipples), 23d St. and Sedgley Ave., Philadelphia, Pa.
Frew Machine Co., The (Metal and woodworking machinery), 128 West Venango St., Philadelphia, Pa.
Frick Co. (Engines, boilers, mach'y), Waynesboro, Pa.; Rochester, Philadelphia, Baltimore, Pittsburgh, Atlanta, Ga.
Frictionless Metal Co. (Bearing metal), 1458-60 Collins St., St. Louis, Mo.; Richmond; Montreal.
Fridy Hoist & Machinery Co. (Car pullers and hoists), Mountville, Pa.
Fried-Lang Leather Co. (Leather belting), 423 E. 56th St., New York, N. Y.
Friedrich & Dimmock (Gage glasses, glass wool), 7 E. 42d St., New York, N. Y.
Fries & Co. (Plumbers' brass goods), 89-91 Main St., Buffalo, N. Y. (See index to advertisement, pages 7, 8 and 9).
Fritz, Charles (Sewer drain cleaner), 1511-13 Diversey Ave., Chicago, Ill.
Fritz, Geo. J., Foundry & Machine Co. (Mach'y, pumps, steam engines, etc.), 2008-28 S. Third St., St. Louis, Mo.
Frontier Chuck & Tool Co. (Drill presses and hack saws), Letchworth and Grant Sts., Buffalo, N. Y.
Frontier Mfg. Co. (Belt dressing), North Tonawanda, N. Y.
Frontier Meter Works (Meters), 12 Waverly St., Buffalo, N. Y.
Frost, C. L., & Son (Die stocks), 345-347 Summer Ave., N. W., Grand Rapids, Mich.
Frost Mfg. Co., The (Boilers), Galesburg, Ill.; 112 West Adams St., Chicago, Ill.
Frost Mfg. Co. (Plumbing, brass goods), 622 Fremont Ave., Kenosha, Wis.
Frost Paint & Oil Co. (Paints, etc.), 1209 N. E. Tyler St., Minneapolis, Minn.
Frugal Boiler Co. (Heating boilers), 964 Berry St., St. Paul, Minn.
Fuel Economizing Co., 19th St., near Derry, Harrisburg, Pa.
Fulflo Specialties Co. (Lubricating pumps), Blanchester, O.
Fuller & Johnson Mfg. Co. (Pumps and engines), Madison, Wis.; 1102-4 Farnam St., Omaha.
Fuller, Otis L. (Slitting shears), Goshen, Ind.
Fuller - Warren Co. (Laundry heaters), 32nd & Wright Sts., Milwaukee, Wis.
Fuller & Warren Co. (Water heaters, etc.), Troy, N. Y.; 58 Beekman St., New York, N. Y.
Fulton Co., The (Heating specialties), Knoxville, Tenn.
Fulton Drop Forge Co., The (Vises), Canal Fulton, Ohio.
Fulton Foundry & Machine Co. (Feed water heaters, exhaust heads, etc.), Morgan Ave. & E. 75th St., Cleveland, O.
Fulton Iron Works (Tackle blocks), 3508 St. Aubin St., Detroit, Mich.
Fulton Sylphon Co. (Valves and Regulators), Knoxville, Tenn.
Furnace Fan Co. (Heating and ventilating fans), Dowagiac, Mich.
Furness Bros. Co. (Steam pumps), 1613 Walnut St., Chicago, Ill.
Futrell Coupler Co. (Shaking and dumping grates), Streator, Ill.

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G-A Ball Bearing Mfg. Co. (Ball bearings), 4550 Fulton Ave., Chicago, Ill.
Gade Bros. Mfg. Co. (Gas engines), Iowa Falls, Ia.
Gade, C. L. (Contractors' mach'y), Iowa Falls, Iowa.
Gage Mfg. Co. (Machine knives), Gardner, Mass.
Gainesville Foundry & Machine Works (Grates and castings), Gainesville, Fla.
Gairing, The Tool Co., Inc. (Counterboxes, etc.), 19 W. Woodbridge St., Detroit, Mich.
Galard Co., The (W. C. seats, tanks, etc.), 335 6th Ave., Newark, N. J.
Gale-Sawyer Co., The (Small tools), 255 Atlantic Ave., Boston, Mass.
Galena Signal Oil Co. (Oils), Franklin, Pa.; Chicago; Cincinnati; New York; Richmond; Atlanta; San Francisco; Indianapolis.
Galewski, A., & Son (Tool bags), 568 Broadway, New York, N. Y.
Galion Iron Works & Mfg. Co. (Mach'y and pipe), Galion, O.; branches in principal cities.
Gallagher, D. J. Mfg. Co. (Cotton waste), 513 S. Clinton St., Chicago, Ill.
Gallaher Boiler Co., The (Heating boilers), Laclede-Gas Bldg., Saint Louis, Mo.
Galland-Henning Mfg. Co. (Hydraulic mach'y), 26th & Montana Aves., Milwaukee, Wis.
Gallmeyer & Livingston Co. (Grinding and woodworking mach'y), 336 Straight Ave., S. W., Grand Rapids, Mich.
Galloway, Wm., Co., The (Gas engines), Waterloo, Ia.
Galva Heater Co. (Water heaters, etc.), Galva, Ill.
Galvanized Products Co. (Hardware), Phillipsburg, N. J.
Gammons-Holman Co. (Reamers), Manchester, Conn
Gamon Meter Co. (Water meters), 278 South St., Newark, N. J.
Gandy Belting Co., The (Cotton belting), 726-740 W. Pratt St., Baltimore, Md.; 36 Warren St., New York; 552 W. Adams St., Chicago.
Ganschow, Wm., Co. (Gears), Washington Blvd. & Morgan St., Chicago, Ill.
Gardam, Wm., & Son, Inc. (Metalworking machines, etc.), 114 Park Pl., New York, N. Y.
Garden City Fan Co., 332 S. Michigan Ave., Chicago, Ill.
Garden City Laboratory (Soldering flux), 33 So. Dearborn St., Chicago, Ill.
Gardiner Metal Co., The (Solder, bearing metal and lead products), 1364 W. Lake St., Chicago, Ill.
Gardner Governor Co., The (Pumps, governors, etc.), Quincy, Ill.; New York, Philadelphia, Chicago, Los Angeles, San Francisco.
Gardner Grate Co. (Boiler grates), 21 Burgess St., Boston, Mass.
Gardner Machine Co. (Grinders), Beloit, Wis.
Garland Company, The (Boiler compound), 3748 E. 91st., Cleveland, O.
Garland Mfg. Co. (Bolts and nuts), 1st Nat'l Bldg., Pittsburgh, Pa.; Chicago; New York; Cleveland.
Garlock Packing Co. (Packings), Palmyra, N. Y.; Philadelphia; San Francisco; New Orleans; New York; Pittsburgh; Cleveland; Chicago; Boston; St. Louis; Denver; Ellwood City, Pa.; Birmingham, Ala.
Garnet, Geo. H., Co. (Lubricants, etc.), 911 No. Lumber St., Allentown, Pa.
Garratt-Callahan Co. (Boiler compounds, etc.), 148 Spear St., San Francisco, Cal.
Garratt, W. T., & Co. (Steam brass goods), 299 Fremont St., San Francisco, Cal.
Garrett, C. S., & Son Corp. (Cement, paint, etc.), Frankford & Torsdale Aves., Philadelphia, Pa.
Garrison Gear Grinder Company, The (Gear tooth grinders), 26 So. St. Clair St., Dayton, O.
Garrison-Helland Corp. (Plumbers' tools, etc.), 124 White St., New York, N. Y.
Garrison Machine Works (Gear chucks), 28 St. Clair St., Dayton, O.
Garvan, P., Inc. (Cotton wipers), 236 Hamilton St., Hartford, Conn.
Garwood Bronze & Iron Works (Bench legs), Garwood, N. J
Gary Screw & Bolt Co. (Wood screws), 122 S. Michigan Ave., Chicago, Ill.
Gas Appliance Co., The (Gas furnaces), 414 Perry Payne Bldg., Cleveland, Ohio.
Gaskell, Wm., & Son (Bolts), 55-61 Freeman St., Brooklyn, N. Y.
Gasket Supply Co., The (Gaskets and washers), 1729 Ludlow St., Philadelphia, Pa
Gaston Scale Co. (Scales), Beloit, Wis.; 1054 Plymouth Bldg., Minneapolis, Minn.
Gaterman, W., Mfg. Co. (Tapping machines), Manitowoc, Wis.
Gates Rubber Co. (Hose, etc.), Denver, Colo.
Gaylord Manufacturing Co. (Water saving devices), 342 Madison Ave., New York; Paterson, N. J.
Geier, P. A., Co., The (Vacuum cleaners, shaft Straighteners), 540 E. 105th St., Cleveland, O.
Geist Manufacturing Co. (Welding preheaters), 2001 Atlantic Ave., Atlantic City, N. J.
Gellman Wrench Corp. (Wrenches), Rock Island, Ill.
Gem City Boiler Works (Boilers), Cor. Leo & Daller Sts., Dayton, O.
Gem Mfg. Co. (Oilers, torches, flexible shafting, etc.), 1220 Goebel St., Pittsburgh, Pa.; 30 Church St., New York; Bourse Bldg., Philadelphia, Pa.
Gem Oil Burner Co. (Oil burners, etc.), 212 So. 19th St., Lincoln, Neb.
General Abrasive Co., Inc. (Abrasive Powders), Niagara Falls, N. Y.
General Asbestos & Rubber Co. (Packings, etc.), Charleston, S. C.; 299 Broadway, New York; 311 Water St., Pittsburgh; 14 N. Franklin St., Chicago.
General Wheelbarrow Company (Wheelbarrows and Carts), Cleveland, Ohio.
General Ceramics Co. (Sanitary pottery), 50 Church St., New York, N. Y.
General Combustion Co., The (Oil furnaces), Monadnock Bldg., Chicago, Ill.; Dime Bank Bldg., Detroit, Mich.; 39 Cortlandt St., New York, N. Y.
General Electric Co. (Electrical mach'y and supplies), Schenectady, N. Y.
General Electric Co., Merchandise Dept. (Welding electrodes), Bridgeport, Conn.

General Fibre Company (Wiping cloths), 2261 So. Union Ave., Chicago, Ill.
General Fire Extinguisher Co. (Valves, fittings, etc.), 1 Liberty St., New York, N. Y.; branches in principal cities.
General Brass Company (Steam-water-gas brass goods), 100 South Campbell Ave., Detroit, Mich.
General Fireproofing Co., The (Factory steel shelving and trucks), Youngstown, O.
General Grinding Wheel Corp., E. Thompson & Clementine Sts., Philadelphia.
General Heating Appliance Co., 52 E. North St., Buffalo, N. Y.
General Manufacturing Co. (Power Presses), 6438 Farnsworth Ave., Detroit, Mich.
General Specialty Co. (Flue cleaners), 64 Carroll St., Buffalo, N. Y.
General Supply & Machine Co. (Sawmill mach'y), Meridian, Miss.
General Water Heater Corp. (Water heaters), 1610 Hooper Ave., Los Angeles, Cal.
General Wheelbarrow Co. (Barrows, trucks and scrapers), 3140 East 65th St., Cleveland, O. (formerly Akron Barrow Company).
Genesee Manufacturing Co., Inc. (Metalworking tools), 141 No. Water St., Rochester, N. Y.
Geneva Boiler Works, Inc. (Heating boilers), Geneva, N. Y.
Geneva Foundry Corp. (Heating boilers), Geneva, N. Y.
Geneva Heater Co. (Water heaters), Geneva, Ill.
Geometric Tool Co. (Die and tap holders), Blake & Valley Sts., New Haven, Conn.
Gerard Mfg. Co. (Range boiler stands), Dickson City, Pa.
Gerdes & Co. (Pipe fittings), 42 Church St., New York, N. Y.
Gerhardt, C. (Flue brushes), 591 Hudson St., New York, N. Y.
Gerken, J. D., Co., The (Radiator covers), 25 Ontario St., Toledo, O.
Germain Bros. Co. (W. C. seats and tanks), Farmers Bank Bldg., Pittsburgh, Pa.
German American Stoneware Works (Plumbing pottery), 50 Church St., New York, N. Y.
Germanow-Simon Machine Co. (Vises), 547 West Ave., Rochester, N. Y.
Gerson-Stewart Corp. (Sanitary materials), E. 76th St. & W. & L. E. Ry., Cleveland, O.
Gerstein & Cooper Co. (Tanks and boilers), 1-3 W. 3d St., Boston, Mass.
(See index to advertisement, pages 7, 8 and 9.)
Gerstner, H., & Sons (Tool cases, etc.), 10 Cincinnati St., Dayton, O.
Gerts, Lumbard & Co. (Paint brushes), 2106 W. Grand Ave., Chicago, Ill.
Geuder, Paeschke & Frey Co. (Fire buckets), St. Paul Ave. and 15th St., Milwaukee, Wis.; 352-358 W. Ohio St., Chicago; 529 Odd Fellows Bldg., St. Louis.
Giant Mfg. Co. (Pipe pushers), Council Bluffs, Iowa.
Gibb Welding Machines Co. (Electric welders), Bay City, Mich.
Gibby Engineering Co. (Heating boilers), 96 Condor St., Boston, Mass.
Gilberson, E. D., & Co., Inc. (Boiler tubes, etc.), 40 Rector St., New York. (See index to advertisement, pages 7, 8 and 9.)
Giblin & Co. (Water heaters), 701 Broad St., Utica, N. Y.
Gibson Bros. Mfg. Co. (Cocks and bibbs), North Chicago, Ill.; New York, N. Y.
Gibson-Schlemmer Co., The (Cellar drainers, etc.), 1050 Hulbert Ave., Cincinnati, O.
Gibson, Wm. D., Co. (Springs), 1806 Clybourn Ave. Chicago, Ill.
Gibson & Price Co. (Lead pipe, etc.), Swetland Bldg., Cleveland, O.
Giddings & Lewis Machine Tool Co. (Woodworking mach'y), 142 Doty St., Fond du Lac., Wis.
Gifford-Wood Co. (Ice and coal handling mach'y, etc.), Hudson, N. Y.; 565 Washington Blvd., Chicago; 50 Church St., New York; 201 Devonshire St., Boston, Mass.; Electric Bldg., Buffalo, N. Y.
Gilbert, A., & Sons Brass Foundry Co. (Brass and copper castings), 4019 Forest Park Blvd., St. Louis, Mo.
Gilbert, A. C., Co., The (Electric fans), Blatchley Ave., New Haven, Conn.; San Francisco, Calif.
Gilbert, J. E., Grinder Co. (Tool post grinder), 214-18 Greenbush St., Milwaukee, Wis.
Gilbert & Barker Mfg. Co. (Mach'y, pumps, heaters, etc.), Cold Springs Ave., W. S., Springfield, Mass.; New York; San Francisco; Chicago.
Gilbert & Co. (Gage glass gaskets), Hyattsville, Md.
Gill Mfg. Co., The (Mining tools), Phillipsburg, Pa.
Gill, P. H., & Sons, Forge & Machine Works (Vacuum traps), 2 Lorraine St., Brooklyn, N. Y.
Gillette Roller Bearing Co., The (Factory trucks), Grand Rapids, Mich.
Gillis & Geoghegan (Ash conveyors), 537 W. Broadway, New York, N. Y.
Gilmer, L. H., Co. (Auto fan belting), Cottman & Keystone Sts., Philadelphia, Pa.; 4835 Woodward Ave., Detroit; 540 W. Lake St., Chicago; 329 E. Water St., Milwaukee.
Gilmore, F. F. Co. (Industrial Diamonds), 198 Dartmouth St., Boston, Mass.
Gilson Slide Rule Co. (Slide rules), Niles, Mich.
Gisholt Machine Co. (Mach'y), 1313 E. Washington Ave., Madison, Wis.; 30 Church St., New York, N. Y.; 1888 Page Ave., Cleveland.
Gits Bros. Mfg. Co. (Oil cups), 1940 S. Kilbourne Ave., Chicago, Ill.
Glacier Metal Co. (Bearing metal), Hull & 22nd St., Richmond, Va.
Glamorgan Pipe & Foundry Co. (Iron pipe), Lynchburg, Va.; 543 The Rookery, Chicago, Ill.
Glascock Stove & Mfg. Co. (Trucks and mach'y), Greensboro, N. C.
Glasgow Iron Co. (Boiler plates), Pottstown, Pa.; 603 Harrison Bldg., Philadelphia, Pa.; Harrington, Robinson & Co., Sargent Bldg., Boston, Mass.; A. B. Murray Co., Inc., 88 Washington St., New York.
Gleason, J. L., & Co. (Electric drills), 241 Franklin St., Boston, Mass.; Mussene Ltd., Montreal.
Gleason Works, The (Gear machines), 1000 University Ave., Rochester, N. Y.
Gledhill Mfg. Company (Center drills), 107 Friendship St., Providence, R. I.
Glenn-Ambler Co. (Leather belting), 5018-20 Beaumont Ave., Philadelphia, Pa.
Glenn Mfg. Co. (Iron plumbing goods), St. Charles, Ill.
Glenzer, J. C., Co., The (Counterbores), 6463 Epworth St., Detroit, Mich.
Glidden Co. (Asbestos cement), Madison Ave., N. W., Cleveland, O.
Globe Automatic Sprinkler Co. (Sprinklers), 2019-35 Washington Ave., Philadelphia, Pa.; branches in principal cities.
Globe Boiler Company (Heating boilers), 205-211 W. Court Ave., Des Moines, Iowa.
Globe Boiler Compound Co. (Boiler compounds), Binghamton, N. Y.
Globe Brass Mfg. Co. (Cocks, etc.), 2925 E. 55th St., Cleveland, O.
Globe Gas Light Co. (Soldering tools), 25-27 Union St., Boston, Mass.
Globe Iron-Crush & Shot Co., The (Shot), Mansfield, Ohio.
Globe Kneadable Metallic Packing Co., Inc. (Packing, piston, metallic), 1077 Coney Island Ave., Brooklyn, N. Y.
Globe Machine & Stamping Co., The (Tumbling barrels, etc.), 1250 W. 76th St., Cleveland, O.
Globe Machinery & Supply Co. (Road mach'y), 207 W. Court St., Des Moines, Ia.
Globe Metal Co. (Babbitt metal), 1040 West N. Ave., Chicago, Ill.
Globe Mfg. Co. (Air compressors), 2011 So. Michigan Ave., Chicago.
Globe Rubber & Tire Co., Inc. (Mechanical rubber goods), P. O. Box 124, Trenton, N. J.
Globe Steel Tubes Co. (Steel tubing), 1345 Burnham St., Milwaukee, Wis.; 1039 Peoples Gas Bldg., Chicago; 110 E. 42nd St., New York.
Globe Stove & Range Co. (Laundry stoves, etc.), Kokomo, Ind.
Globe Tank & Seat Co., Inc. (W. C. tanks and seats), 15 Hubbard St., Brooklyn, N. Y.
Globe Ventilator Co. (Roof ventilators), 205 River St., Troy, N. Y.
Globe Woven Belting Co. (Cotton belting), 1396 Clinton Ave., Buffalo, N. Y.
Glor, W. J. (Coping machines), 400 Lakeside Ave., N. W., Cleveland, O.
Glow Electric Co. (Electric drills), 219 Walnut St., Cincinnati, O.
Go-Ro Water Heater Co., Inc. (Water heaters, etc.), 4124 Tulane Ave., New Orleans, La.
Goade Water Filter & Purifier Mfg. Co. (Water filters and softeners), Allentown, Pa.
Goddard & Goddard Co. (Milling cutters and hobs), 25 So. Jefferson St., Chicago, Ill.; Dayton, O.;
Godfrey Conveyor Co. (Coal conveyor), Elkhart, Ind. branches in all principal cities.
Goetz Brass Company (Bath fixtures and showers), 630 No. Franklin St., Chicago, Ill.
Goetze Gasket & Packing Co. (Gaskets and packing), New Brunswick, N. J.
Goheen Corporation of New Jersey (Industrial paints), 202 Emmett, Newark, N. J.
Golco Sanitary System, Inc. (Bathroom fixtures), Emerald & Hagert Sts., Philadelphia, Pa.
Gold Car Heating & Lighting Co. (Electric industrial heaters), 220 36th St., Brooklyn, N. Y.
Golden-Anderson Valve Specialty Co. (Valves), 1015 Fulton Bldg., Pittsburgh, Pa.
Goldens' Foundry & Machine Co. (Power transmismission mach'y), Columbus, Ga.
Good Mfg. Co. (Plumbers' tools), 305 E. 134th St., New York, N. Y.

Good Roads Machine Co. (Concrete mixers), Kennett Square, Pa.

Goodall Rubber Company. (Hose, packing, etc.), 8th & Locust Sts., Philadelphia, Pa.; 38 Vesey St., New York; 112 W. Pratt St., Baltimore; 532 4th Ave., Pittsburgh, Pa.

Goodell-Pratt Company (Machine tools), Greenfield, Mass.; 107 Lafayette St., New York, N. Y.; 38 N. Clinton St., Chicago, Ill.

Goodman Automatic Water Heater Co. (Gas water heaters), 523 Atlantic Ave., Brooklyn, N. Y.

Goodell, Zina, Corporation (Test indicators), 88 Lafayette St., Salem, Mass.

Goodrich Grinding Wheel Co. (Grinding wheels and oil stones), 1500 West Madison St., Chicago, Ill.

Goodrich, The B. F., Rubber Co. (Rubber goods), Akron, O.; New York; Boston; Chicago; Philadelphia; Buffalo; Detroit; Denver; San Francisco; Los Angeles; Atlanta; Dallas; Houston; Hoboken, N. J.; Joplin, Mo.; Kansas City; Norfolk, Va.; Seattle; Baltimore.

Goodsell Packing Co. (Packings) Lake St. and 2nd Ave., Maywood, Ill.

Goodspeed Machine Co. (Woodworking mach'y), 202 Spruce St., Winchendon, Mass.

Goodyear Tire & Rubber Co., Inc. (Rubber goods), Akron, O.; Los Angeles, Cal.

Gooley & Edlund (Milling machines), Huntington St., Cortland, N. Y.

Gordon Hollow Blast Grate Co. (Woodworking and sawmill mach'y), Greenville, Mich.

Gordon, Robt. E. (Machinery guards), 1738 W. Van Buren St., Chicago, Ill.

Gorton, Geo., Machine Co. (Metal engraving machines), 1107 13th St., Racine, Wis.

Gorton & Lidgerwood Co. (Heating boilers and radiator valves), 96 Liberty St., New York; 182 High St., Boston.

Goss & De Leeuw Machine Co. (Lathes), Berlin St., New Britain, Conn.

Gould Packing Co. (Packings), 88 Cambridge St., East Cambridge, Mass.

Gould & Eberhardt (Machine tools), Chancellor Ave., Newark, N. J.

Goulds Pumps, Inc. (Pumps), Seneca Falls, N. Y.; Branches in principal cities.

Goyne Steam Pump Co., The (Steam pumps, etc.), Ashland, Pa.

Grabler Mfg. Co., The (Malleable pipe fittings and specialties), 6565 Broadway, Cleveland, O.; The Grabler Co. of New York, 26 Cliff St., New York; 4600 W. Harrison St., Chicago, Ill.

Grabo, E. O., Machine Works, Inc. (Grindstones, lathes, etc.), 180 Centre St., New York, N. Y.

Grady Brass Co. (Plumbing brass goods), Mansfield, Pa.

Grady Mfg. Co. (Metal polish), 250-256 Ely Ave., Long Island City, N. Y.

Graff Furnace Co., The (Heating boilers), 116-118 Wooster St., New York, N. Y.

Graham Bolt & Nut Company (Machine bolts), Neville Island, Pittsburgh, Pa.

Graham, James, & Co. (Hammers and bushings), 293 Wooster St., New Haven, Conn.

Graham Mfg. Co., The (Drill press vises), 71 Willard Ave., Providence, R. I.

Grammes, L. F., & Sons (Light mach'y), 344 Union St., Allentown, Pa.

Grand Haven Brass Foundry Co. (Closet seat hinges, etc.), Grand Haven, Mich.

Grand Rapids Blow Pipe & Dust Arrester Co. (Blow piping), 525 Monroe St., N. W., Grand Rapids, Mich.; 5779 Russell St., Detroit.

Grand Rapids Gasoline Engine Co. (Gas engines), Grand Rapids, Mich.

Grand Rapids Hardware Co. (Boring machines), 503 11th St., N. W., Grand Rapids, Mich.

Grand Rapids Salvage Co. (Baling presses), 21 Market Ave., Grand Rapids, Mich.

Grand Rapids School Equipment Co. (Work benches, etc.), 1430 Front Ave., N. W., Grand Rapids, Mich.

Grand Rapids Water Cooler Co. (Drinking fountains), 108-110 Lexington Ave., Grand Rapids, Mich.

Grant Gear Works (Gears), 154 W. 2nd St., Boston.

Grant Iron Works (Steam engines, castings, etc.), Mahanoy City, Pa.

Grant Mfg. & Machine Co., The (Riveting machines), Silliman Ave., Bridgeport, Conn.; 30 Church St., New York.

Grapho Metal Packing Co. (Metallic packing), 1118 Central Ave., Indianapolis, Ind.

Grasselli Chemical Co. (Soldering flux), Guardian Bldg., Cleveland, O. Branches in principal cities.

Grasselli Powder Co., The (Explosives), Guardian Bldg., Cleveland, O.; Philadelphia; Pittsburgh; Chicago; Uniontown, Pa.; Pottsville, Pa.

Graton & Knight Co. (Leather belting, etc.), 356 Franklin St., Worcester, Mass.; Atlanta, Boston, Chicago, Cincinnati, Cleveland, Detroit, Fall River Kansas City Minneapolis, New York, Philadelphia, Pittsburgh, Portland, Ore.; Seattle, St. Louis, Dallas, Milwaukee, San Francisco.

Graver Corporation (Tanks, etc.), East Chicago, Ind.; Denver; Salt Lake City; Los Angeles.

Graves File Co., The (Files and rasps), 67 New Jersey R. R. Ave., Newark, N. J.

Graves, W. L. (Vise stands), Hatfield, Mass.

Gray G. A., Co., The (Metalworking planers), Woodburn & Penn Ry., Cincinnati, O.

Gray Iron Foundry Co. (Concrete mixers), W. Green and Tulpehocken Sts., Reading, Pa.

Gray & Prior Machine Co., The (Soda and potash kettles), 614 Windsor St., Hartford, Conn.

Grayson Mfg. Co. (Gas burners), Athens, O.

Greason Mfg. Co. (Plumbing specialties), 108 W. 99th St., New York, N. Y.

Great Lakes Chemical Works (Metals), 436 E. Woodbridge St., Detroit, Mich.

Great Western Mfg. Co. (Mach'y), Leavenworth, Kan.; 1400 W. 12th St., Kansas City, Mo.

Great Western Oil Co., The (Lubricating oil, paint, etc.), 2855 E. 37th St., Cleveland, O.; branches in all principal cities.

Greaves-Klusman Tool Co., The (Woodworking mach'y), South St., Oakley, Cincinnati, O.

Greb Co., Inc., The (Wheel pullers), 173 State St. Boston, Mass.

Green, Arthur H. (Pipe and boiler coverings), 1801 Federal St., Camden, N. J.

Green Bay Drive Calk Co. (Tool holders), Green Bay, Wis.

Green Equipment Corp. (Commutator stones and slotters), 260 Monadnock Bldg., Chicago.

Green Fuel Economizer Co., The (Heating and drying apparatus), Beacon, N. Y.; branches in principal cities.

Green, Schaw & Schaw (Valves), 1330 Second St., West Berkeley, Calif.

Greene, Burton, Leather Co. (Leather belting), 5100 Ravenswood Ave., Chicago, Ill.

Greene, Tweed & Co. (Packings, belt fittings, etc.), 109 Duane St., New York, N. Y.

Greenfield Tap & Die Corp., Greenfield, Mass.; 15 Warren St., New York; 13 S. Clinton St., Chicago; 1143 Locomotive Engineers Bldg., Cleveland; 336 Congress St. W., Detroit; Galt, Ont., Canada.

Greenlee Bros. & Co. (Woodworking mach'y), 12th street, Rockford, Ill.

Greenlie-Halliday Co. (Pipe hangers), 495-499 Water St., New York.

Greenville Belting Company (Leather belting, etc.), Greenville, S. C.

Greer Chemical Co., The (Water filters), 20 W. Jackson Blvd., Chicago, Ill.

Gregg Co., The, Ltd. (Cars), Hackensack, N. J.; 67 Wall St., New York.

Griffin, G. W., Co. (Hack saws), Franklin, N. H.

Griffin, John J., & Co. (Meters), 1513-21 Race St., Philadelphia, Pa.; 105 W. 40th St., New York.

Griffin Mfg. Co., 15th & Cherry Sts., Erie, Pa.

Griffin Roofing Co. (Roofing cement), 506 West 26th St., New York, N. Y.

Griffith Tool Works (Hammers and hatchets), 521 Market St., Philadelphia.

Griffiths, The Albert, Saw Co. (Saws and knives), 1837 Columbus Ave., Boston 19, Mass.

Griffiths, James A., & Son (Injectors, etc.), 1315-17 Buttonwood St., Philadelphia, Pa.

Grinnell Co., Sales Company for General Fire Extinguisher Co. (Valves, fittings, etc.), 275 West Exchange St., Providence, R. I.

Grip-n-Stick Company (Wrenches), Dover, O.

Grip Nut Co. (Locknuts), 5917 S. Western Ave., Chicago, Ill.

Griscom-Russell Co. (Engines and steam specialties), 285 Madison Ave., New York, N. Y.; Chicago; San Francisco, Cal.; Philadelphia.

Grobet File Corp. of America (Files), 3 Park Pl., New York, N. Y. (See index to advertisement, pages 7, 8 and 9.)

Groen Mfg. Company, Inc. (Steam jacketed kettles), 4533 Armitage Ave., Chicago, Ill.

Groeniger Mfg. Co., The (Plumbing supplies), 507 Buttles Ave., Columbus, O.

Groetken Pump Co., The (Gasoline pumps), 179-87 River St., Aurora, Ill.

Groezinger's Sons, G. (Belt lacing), Lancaster, Pa.

Gross, A., & Co. (Plumbers' candles), 90 West St., New York, N. Y.

Gross, George, & Son (Pipe brackets), 8816 Rockaway Beach Blvd., Brooklyn, N. Y.

Gross, William M., Co. (Mechanics' aprons), Carver Bldg., Sharon, Pa.

Grote Mfg. Co., The (Elevators and presses), 117 3rd Ave., Evansville, Ind.

Groven Mfg. Co., The (Kettles), 4533 Armitage Ave., Chicago Ill.

Grover File Co., The (Files, saw blades, etc.), 2 Canal St., Nashua, N. H.
Gruman Ice Tool Works, Inc. (Ice breakers), Branchville, Conn.
Guardian Gas Appliance Co., The (Garbage burners), 1364 E. 47th St., Cleveland, O.
Guarantee Liquid Measure Co. (Measuring pumps), Rochester, Pa.
Guenther Foundry (Manhole covers, etc.), 108 W. Liberty St., Columbus, O.
Guenther, Theo H., 835 Main St., Holyoke, Mass.
Guild & Garrison (Pumps), 457 Kent Ave., Brooklyn, N. Y.
Guilderland Foundry Co. (Iron fittings), Guilderland, N. Y.
Guillott Metal Gasket & Supply Co. (Gaskets), 24 S. Clinton St., Chicago, Ill.
Gulf Refining Co. (Oils), Frick Annex, Pittsburgh, Pa.; New York, Philadelphia, Boston, New Orleans, Houston, Atlanta, Louisville.
Gulf States Belting & Hose Co. (Belting and hose), 200 Texas St., Shreveport, La.
Gulf States Pipe Corp., Smith Bldg., Anniston, Ala. (Exclusive sales agents for Emory Foundry Co., Interstate Foundry Co., Independent Soil Pipe Co., Rudisill Soil Pipe Co., Amiston; Kilby Pipe Co., Inc., Southern Pipe & Foundry Co., Birmingham; Southern Pipe & Foundry Co., Gate City, Ala.; Southern Pipe & Foundry Co., Inc., Knoxville, Tenn.
Gunster Bros. (Smoke testers), 325 Penn Ave., Scranton, Pa.
Gurley Pump & Mfg. Co. (Electric house pumps), 1511 Bates St., Indianapolis, Ind.
Gurley, W. & L. E. (Surveyors' instruments), 514 Fulton St., Troy, N. Y.
Gustafson & Scott Mfg. Co. (Saw guards), 1637 Lowell Ave., Chicago, Ill.
Gustin-Bacon Mfg. Co. (Chucks), 1416 W. 12th St., Kansas City, Mo.; 109 So. Cincinnati St., Tulsa, Okla.; 1021 Filbert St., Philadelphia, Pa.
Gutta Percha & Rubber Mfg. Co., The (Rubber goods), 350 Madison Ave., New York, N. Y.; 301 W. Randolph St., Chicago; Boston; Buffalo; Philadelphia; Pittsburgh; Salt Lake City; San Francisco; Seattle.
Gwilliam Manufacturing Corp. (Couplings, nipples, etc.), 915 No. Front St., Philadelphia, Pa.

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H. & A. Lock Co., The (Mach'y guards), 243 44th St. Brooklyn N. Y.
H. & O. Chain Co. (Shaft coupling), South Norwalk, Conn.
Haas, Philip, Co. (Water closets), 123 No. Webster St., Dayton, O.
Haas, Wm., Co., 429 E. 3rd St., Dayton, O.
Hach, Richard G. (Urinal strainers), 159 E. 26th St., New York, N. Y.
Haddon Bin Label Co. (Bin markers), 202 W. Atlantic Ave., Haddon Heights, N. J.
Hagan, L. T. (Belt shifters), Winchester, Ky.
Hagan Corporation (Heating specialties), Chamber of Commerce Bldg., Pittsburgh, Pa.
Haggard & Marcusson Co. (Steel bunks), 1109 W. 37th St., Chicago, Ill.
Hagman Machine Works (Safety clutches), 237W Division St., Syracuse, N. Y.
Hagy, J. Milton, Waste Works, Inc. (Waste), 836-42 S. Swanson St., Philadelphia, Pa.; 30 Church St., New York, N. Y.; 407 Bessemer Bldg., Pittsburgh.
Haines Co., The (Pipe sleeves), 1927-33 W. Lake St., Chicago, Ill.
Haines Gauge Co. (Micrometer gauges), 119 S. 4th St., Philadelphia, Pa.
Haines, William S., & Co. (Valves, traps), 12th and Buttonwood Sts., Philadelphia, Pa.
Haisler Bros. Co. (Machine brushes), 740 N. Franklin St., Chicago, Ill.
Haiss, Geo., Mfg. Co. (Coal handling mach'y), 391 Canal Pl., New York, N. Y.
Hajoca Corporation (Plumbers' supplies), 1136 Ridge Ave., Philadelphia, Pa.
Halcomb Steel Co. (Tool steel), Syracuse, N. Y.; Detroit, Cleveland, Boston, New York City, Chicago, Philadelphia.
Hald Blow Pipe Works, Inc. (Pressure blowers), Oak and Franklin Sts., Brooklyn, N. Y.
Hall Mfg. Co. (Power plant specialties), 600 William St., Harrison, N. J.
Hall Mfg. Co. (Tackle blocks), 31st St. & 2nd Ave., Cedar Rapids, Iowa.
Hall Planetary Co. (Thread milling machinery), Fox St. & Abbotsford Ave., Philadelphia, Pa.
Hall Pump & Compressor Co. (Pumps), Cheswick, Pittsburgh, Pa.
Hall-Will, Inc. (Pipe threading machines), Erie, Pa.
Hall & Brown Wood Working Machine Co. (Woodworking machinery), 1913-1933 N. Broadway, St. Louis, Mo.; Chicago.
Hall & Cary Weaving & Belting Co., Inc. (Belting), 17 Exchange St., Lockport, N. Y.
Hallden Machine Co. (Tube cutting machines), 27 Benedict St., Waterbury, Conn.
Hamburg Boiler Works (Tanks and boilers)), Hamburg, Pa.
Hamburg Broom Works (Brooms and brushes), Hamburg, Pa.
Hamilton Beach Mfg. Co. (Drills and grinders), Rapids Drive, Racine, Wis.
Hamilton Caster & Mfg. Co., The (Truck casters), 6350 Hanover St., Hamilton, O.; 173 E. Woodbridge, Detroit, Mich.; 70 Wall St., New York, N. Y.; 376 E. Water St., Milwaukee, Wis.; 179 N. Wells St., Chicago, Ill.; 807 Jones Bldg., Pittsburgh, Pa. (See index to advertisement, pages 7, 8 and 9.)
Hamilton Emery & Corundum Co. (Emery powder and cake), Chester, Mass.
Hamilton Rubber Mfg. Co. (Rubber hose and packing), Trenton, N. J.; New York; Chicago; Philadelphia; San Francisco; Pittsburg; Boston; New Orleans.
Hamler Boiler & Tank Co. (Tanks, etc.), 6025 West 66th St., Chicago, Ill.
Hamlin & Emery Brass Co., The (Brass fittings), 49 Island St., Boston, Mass.
Hammel Oil Burning Equipment Co., Inc. (Oil burners and furnaces), 409 Pine St., Providence, R. I.; New York.
Hammel Oil Burner Co. (Oil burners), 640 N. Main St., Los Angeles, Cal.; Philadelphia.
Hammer Blow Tool Co. (Power hammers), Wausau, Wis.
Hammett Machine Works (Machinery and tools), 476-80 Eighth St., Troy, N. Y.
Hammett Mfg. Co. (Gasoline motor testers), 13th & Oak Sts., Kansas City, Mo.
Hammon Coupler Co., The (Pipe line fittings), Mt. Vernon, O.; Farmers Bank Bldg., Pittsburgh, Pa.; 203 Cole Bldg., Tulsa, Okla.
Hammond Brass Works (Valves and elbows), Hammond, Ind. Agents in principal cities.
Hammond, C., & Son (Hammers, hatchets and axes), Ogontz, Pa.
Hammond Iron Co. (Iron pipe and fittings), 1707-1719 American Trust Bldg., Birmingham, Ala.; 1749 Sacramento St., San Francisco; 342 Madison Ave., New York, N. Y.
Hammond Mfg. Co., The (Drilling and tapping machines, 7808 Kinsman Rd., Cleveland, O.
Hampden Grinding Wheel Co. (Emery wheels, etc.) Fisk Ave., Springfield, Mass.
Hampden Paint & Chemical Co. (Factory paints 317 Main St., Springfield, Mass.; Boston; New York.
Hancock Inspirator Co., The (Injectors, valves, etc.), Pershing Sq. Bldg., New York, N. Y.; Chicago; Boston.
Hancock Mfg. Co. (Oilers, etc.), Charlotte, Mich.
Hande Wrench Co. (Wrenches), New Bedford, Mass.
Handlan-Buck Mfg. Co. (Railroad track tools), 212 No. 3rd St., Saint Louis, Mo.
Handon Boiler Corporation (Heating boilers), 101 Park Ave., New York, N. Y.
Handy Equipment Co., 201 No. Water St., Peoria, Ill.
Handy Mfg. Co. (Clamps and presses), 29 E. Madison St., Chicago, Ill.
Handy Sack Baler Co. (Sack balers), 631 So. 2nd St., Marion, Iowa.
Handy & Harman (Precious metals), 57 William St., New York, N. Y.
Hanlon & Wilson (Expansion reamers), Wilkinsburg, Pa.
Hanneman Bros. (Laundry trays), 7841 South St., Detroit, Mich.
Hannifin Mfg. Co. (Chucks, countershafts, etc.), 621 S. Kolmar Ave., Chicago, Ill.
Hanover Cordage Co. (Twine and cordage), 240-246 E. Chestnut St., Hanover, Pa.
Hanscom Cutter Works (Milling cutters), 1297 River St., Hyde Park Sta., Boston, Mass.
Hansen Brass Mfg. Co. (Brass goods), Grand Rapids, Mich.
Hanson Bros. (Screw machine products), Plainville, Conn.
Hanson Bros. Scale Co. (Scales), 523 Adams St., Chicago, Ill.
Hanson, C. H., Co., The (Steel stamps), 178 N. Clark St., Chicago, Ill
Hanson Clutch & Machinery Co., The (Power transmission appliances), Tiffin, O.
Hanson-Whitney Machine Co. (Shapers), 169 Bartholomew Ave., Hartford, Conn.
Hardie Mfg. Co., The (Spray pumps), Hudson, Mich.
Hardie-Tynes Mfg. Co. (Steam engines and air compressors), 800 No. 28th St., Birmingham, Ala.
Harding, Arthur S., Co. (Oilers), West Somerville, Mass.
Harding Mfg. Co. (Small tools), Mansfield, Mass.
Hardinge Bros., Inc. (Lathes, etc.), 4147 Ravenswood Ave., Chicago, Ill.
Hardsocg, Martin Co., The (Mining tools), 922 South Ave., Pittsburgh, Pa.; Athens, Ohio.

Hardsocg Wonder Drill Co., The (Rock Drills), Ottumwa, Ia.
Hardware Specialties Co. (Lawn sprinklers), Springfield, O.
Hardy, L., Co. (Machine knives), 9 Mill St., Worcester, Mass.
Harker Mfg. Co. (Fire protection appliances), 121 West 3rd St., Cincinnati, O.
Harnischfeger Corp., The (Cranes and hoists), 28th & National Aves., Milwaukee, Wis.
Harno Mfg. Co. (Pipe cutting machines), Grand Haven, Mich.
Haroco Balata Belting Co., Inc. (Balata belting), 354 Fourth Ave., New York, N. Y. (See index to advertisement, pages 7, 8 and 9.)
Harper, H. A., Co., The (Bolts and screws), 1314 Sherman Ave., Evanston, Ill.
Harper Mfg. Co. (Packing), Chester, Pa.
Harrington Company (Hoists and machine tools), 17th & Callowhill Sts., Philadelphia, Pa.
Harrington, Joseph, Co. (Stokers), Harvey, Ill.
Harrington & King Perforating Co. (Perforated metals), 5665 Fillmore St., Chicago, Ill.; 114 Liberty St., New York.
Harris, A. W. Oil Co. (Oils, etc.), 326-328 S. Water St., Providence, R. I.; 22 E. Washington St., Chicago, Ill.
Harris Air Pump Co. (Air pumps), 421 West South St., Indianapolis, Ind.; 405 Manhattan Bldg., Chicago, Ill.
Harris, Arthur, & Co. (Floats, pipe coils, etc.), 212-216 N. Curtis St., Chicago, Ill. (See index to advertisement, pages 7, 8 and 9.)
Harris Calorific Co. (Welding and cutting apparatus), 2828 Washington Ave., Cleveland, O.
Harris, C. S., Co. (Hoists), Rome, N. Y.
Harris Engineering Co. (Tapping machines), 1047 Broad St., Bridgeport, Conn.
Harris & Reed Mfg. Co. (Wrenches), 1510 W. 15th St., Chicago, Ill.
Harrisburg Fdy. & Machine Wks., (Steam engines), 7th & Curtin Sts., Harrisburg, Pa.; branches in all principal cities.
Harrisburg Mfg. & Boiler Co. (Boilers, etc.), 19th & Derry Sts., Harrisburg, Pa.
Harrisburg Pipe & Pipe Bending Co. (Heaters, etc.), Herr St., near 10th, Harrisburg, Pa.
Harrisburg Stamping Co. (Hose clamps), 6th and Cumberland Sts., Harrisburg, Pa.
Harrisburg Star Boiler Corp. (Boilers, etc.), 15 Park Row, New York, N. Y.
Harrison & Co. (Polishing compounds), Groveland St., Haverhill, Mass.
Harry, O. K., Steel Co. (Steel tanks, etc.), 2333 Papin St., St. Louis, Mo.
Harshaw, Fuller & Goodwin Co. (Calcium chloride), Hanna Bldg., Cleveland, O.
Hart Co., Inc. (Valves, etc.), Williamsport, Pa.
Hart Mfg. Co. (Pipe threading tools), 2319 E. 20th St., Cleveland, O.
Hart Mfg. Co., The (Drinking fountains), 2006 High St., Louisville, Ky.
Hart Mirror Plate Co. (Bathroom fittings), Grand Rapids, Mich.
Hart Oil Burner Co. (Fuel oil burners), Peoria, Ill.
Hart Packing Co. (Packing), 183 High St., Boston, Mass.
Hart, R. A., Mfg. Co. (Counting machines), Battle Creek, Mich.
Hart Roller Bearing Co. (Roller bearings), Orange, N. J.
Hart & Cooley, Inc. (Fresh air inlets), New Britain, Conn.
Hart & Crouse Co. (Boilers and radiators), 301 Turner St., Utica, N. Y.
Hart & Hutchinson Co., The (Metal lockers), New Britain, Conn.; 501 Fifth Ave., New York, N. Y.; 73 East Lake St., Chicago, Ill.; 141 Milk St., Boston, Mass.; 1010 Real Estate Trust Bldg., Philadelphia, Pa.
Hartford Clamp Co. (Clamps and hand screws), 456 Park Ave., Burnside, Conn.
Hartford Machine Screw Co. (Screws), 476 Capitol Ave., Hartford, Conn.; 409 Broome St., New York; 616 E. Main St., Richmond, Va.; 320 Market St., San Francisco.
Hartford Products Co. (Factory brushes), 120 Morgan St., Hartford, Conn.
Hartford Special Machinery Co. (Taper gages), 274 Homestead Ave., Hartford, Conn.
Hartford Valve Mfg. Co. (Valves, etc.), 16 Sigourney St., Hartford, Conn.
Hartley Boiler Works (Boilers, tanks, etc.), Montgomery, Ala.
Hartley, C. J., Co. (Sink pumps), Peoria, Ill.
Hartley-Rose Belting Co. (Leather belting), 425 First Ave., Pittsburgh, Pa.
Hartmann, Chas., Co. (Radiator hangers), 985 Dean St., Brooklyn, N. Y.
Hartwell Brothers Co. (Wood handles), Chicago Heights, Ill.
Hartwell Handle Co. (Wood handles), Harvey, Ill.
Hartz, H. V., Co., The (Tackle blocks), cor. Cuyahoga and Mahoning Ave., Cleveland, O.
Harvey's, A., Sons Mfg. Co. (Pipe, nipples, etc.), First and Woodbridge Sts., Detroit, Mich.
Hasco Products Co. (Belt dressing), Springfield, Mass.
Haskell, Wm. H., Mfg. Co., The (Bolts, screws & nuts), 24 Commerce St., Pawtucket, R. I.
Haskins, R. G., Co. (Portable grinders), 3450 West Lake St., Chicago, Ill.
Hassall, John, Inc. (Rivets & nails), 402 Oakland St., Brooklyn, N. Y.
Hatheway Mfg. Co., The (Plumbers' chain), Bostwick Ave., Bridgeport, Conn.
Hauck Mfg. Co. (Brazing outfits, torches, etc.), 126 10th St., Brooklyn, N. Y.; branches in principal cities.
Hauer, J. B., Inc. (Pipe hangers, etc.), 460 Driggs Ave., Brooklyn, N. Y.
Hause, Chas. F., Mfg. Co., Inc. (Pipe joint cement), 1209 Farnam St., Omaha, Neb.; 937 Howard St., San Francisco.
Hauserman, E. F., Co. (Steel bins and partitions), 1729 E. 22nd St., Cleveland, O.
Havana Mfg. Co. (Pulleys and hoists), Havana, Ill.
Hawes, C. L. (Lathes), 12 Adams St., Ashtabula, Ohio.
Hawes Mfg. Co. (Pulley covering), 111 Hudson Ave., Jersey City, N. J.
Hawker Mfg. Co. (Woodworking mach'y), 458 E. Bacon St., Dayton, O.
Hawley Down Draft Furnace Co. (Furnaces), Easton, Pa.
Haws Sanitary Drinking Faucet Co., 1808 Harmon St., Berkeley, Cal.
Hayden & Derby Mfg. Co., The (Injectors, etc.), 119 Pershing Square Bldg., New York, N. Y.; Boston; Chicago.
Hayden Supply Co. (Belt lacing, bearing metal), 236 Pearl St., N. W., Grand Rapids, Mich.
Haydenville Co., The (Water, steam, gas, air brass goods), Haydenville, Mass.
Hayes Mfg. Co. (Copper boilers), 31 McBride Ave., Paterson, N. J.
Hayes Products Co. (Water closet tanks, etc.), Grand Haven, Mich.
Hayes Pump & Planter Co. (Pumps), Galva, Ill.
Hayner, Norman C., Co. (Boiler compounds), Duffy-Powers Bldg., Rochester, N. Y.
Hays Mfg. Co. (Water, gas, steam goods), 12th and Liberty Sts., Erie, Pa.
Hays Corporation, The (Power plant instruments), Michigan City, Ind.; branches in principal cities.
Hayward Co., The (Excavating mach'y), 50 Church St., New York, N. Y.
Hazard Mfg. Co. (Wire rope), East Ross & State Sts., Wilkes-Barre, Pa.; New York; Chicago; Denver; Pittsburgh, Pa.; Birmingham, Ala.
Hazen Mfg. Co. (Pumps), Hudson, Mich.
Healey Pottery Co. (Sanitary pottery), Toskett St., Trenton, N. J.
Healy, Peter, Brass Foundry Co. (Brass goods), 201 "L" St., Evansville, Ind.
Healy-Ruff Co. (Radiator hangers), 765 Hampden Ave., Saint Paul, Minn.
Heap, Wm., & Sons (Plumbers' woodwork), Fulton & Hopkins Sts., Grand Haven, Mich.
Heartley Machine, Variety Iron & Tool Works (presses, punches, shears, etc.), 900-902-904-906-908 Summit St., Toledo, O.
Heath Grate Bar Co. (Grates), 333 Washington St., Boston, Mass.
Heating & Power Appliance Co. (Heating specialties), 200 Pleasant St., Milwaukee, Wis.
Heckman Tool & Mfg. Co. (Pipe straps), 4018 W. Lake St., Chicago, Ill.
Hedges & Brother (Cocks, valves, etc.), 105 South St., Newark, N. J.
Heggie-Simplex Boiler Co. (Heating boilers), 1708 Collins St., Joliet, Ill.
Heide & Resek (Pipe hangers), 46 W. 43rd St., Bayonne, N. J.
Heierman Industries, 117-119 E. 5th St., Austin, Tex.
Heil Co., The (Steel tanks), 26th and Montana Ave., Milwaukee, Wis.; branches in principal cities.
Heim Grinder Company, The (Grinding machines), Danbury, Conn.
Heine Boiler Co. (Water tube boilers, superheaters), 5319 Shreve Ave., St. Louis, Mo.; New York, Boston, Philadelphia, Pittsburgh, Chicago, New Orleans, Cincinnati, Detroit, Denver, Dallas, Charlotte, Cleveland, San Francisco, Phoenixville, Pa.
Heinisch, R., Sons Works (Tinners' snips), 109-121 Bruce St., Newark, N. J.; 190 N. State St., Chicago, Ill.
Heinn Company, The (Loose leaf binders), 351 Florida St., Milwaukee, Wis.
Heiz & Heiz (Cotter pins, nuts, washers, etc.), 27 Cleveland Place, New York, N. Y.
Heller-Aller Co., The (Windmills, pumps, etc.), Napoleon, O.

Heller Brothers Co. (Hand tools and tool steels), 879 Mt. Prospect Ave., Newark, N. J.
Heller Tool Co. (Blacksmiths' tools), 879 Mt. Prospect Ave., Newark, N. J.
Heller, W. C., & Co. (Steel bins, etc.), 171 Wabash Ave., Montpelier, O.; 915 No. Davidson St., Indianapolis, Ind.
Helme & McIlhenny (Gas meters), 17th and Clearfield Sts., Philadelphia, Pa.
Helwig Mfg. Co. (Pneumatic machinery), 422 E. 7th St., St. Paul, Minn.
Hemmerdinger, J. H., & Son (Leather belt lacing), Vandervoort Ave., Brooklyn, N. Y.
Hemming Bros. Co., Inc. (Grinding and polishing machines), 205-207-209 River St., New Haven, Conn.
Henderer's, A. L., Sons (Shears, punches, jacks, etc.), Maryland Ave. and Beech St., Wilmington, Del.; 143 Chambers St., New York.
Henderson Bros. (Tumbling barrels), 133 S. Leonard St., Waterbury, Conn.
Henderson, W. K., Iron Works & Supply Co. (Pulleys, machinery, etc.), Shreveport, La.
Henderson-Willis Welding & Cutting Co. (Welding equipment), 2305 N. 11th St., St. Louis, Mo.; Milwaukee; Chicago.
Hendey Machine Co., The (Lathes, etc.), Torrington, Conn.; Chicago, New York, Boston, Rochester.
Hendley & Whittemore Co. (Woodworking machinery), Beloit, Wis.
Hendryx, Andrew B., Co., The (Chains), 78 Audubon St., New Haven, Conn.
Hennebohle, Frank, Co. (Steam specialties), 8101 South Chicago Ave., Chicago, Ill.
Henry Bros. (Gas burners and furnaces), 198 North St., Massillon, O.
Henry & Allen (Pipe wrenches), Auburn, N. Y.
Henry & Wright Mfg. Co. (Drills and presses), 760 Windsor St., Hartford, Conn.
Herbert Boiler Co., The (Boilers), Root and LaSalle Sts., Chicago, Ill.; Milwaukee; Atlanta; Salt Lake City.
Herbrand Co., The (Wrenches), 109-125 E. State St., Fremont, O.; 324 W. Washington St., Chicago.
Hercules Belt Lace Co. (Belt accessories), 922 N. Sheridan, Waukegan, Ill.
Hercules Chemical Co. (Drain pipe cleaner), 396 Broadway, New York.
Hercules Corporation, The (Gas engines), 19 Morton St., Evansville, Ind.
Hercules Float Works (Copper floats), 200-210 Franklin St., Springfield, Mass.
Hercules Machine Co. (Lathes), 404 Broome St., New York.
Hercules Mfg. Co. (Broaching machines), 734 Mt. Elliott St., Detroit, Mich.
Hercules Powder Co. (Explosives), Delaware Trust Bldg., Wilmington, Del.
Hergi Mfg. Co., The (Screwdrivers), 250 Fifth St., Bridgeport, Conn.
Herlth, O. B., Mfg. Co. (Parallels), 983 Main St., Hartford, Conn.
Herman Pneumatic Machine Co. (Pneumatic machines), 804 Union Bank Bldg., Pittsburgh, Pa.; Factory, Zelienople, Pa.
Hermance Machine Co. (Woodworking machinery), First and Campbell Sts., Williamsport, Pa.
Hermatic Company, Division of Hercules Chemical Co., Inc. (Pipe cleaners, etc.), 44 E. Allen St., Philadelphia, Pa.
Herold Bros. Co., The (Wire wheel brushes), 741 Euclid Ave., Cleveland, O.
Herrick, George S., Co. (Grates), 217 No. Franklin St., Syracuse, N. Y.
Hersey Mfg. Co. (Water meters), 381 E. St., Boston, Mass.; branches in all principal cities.
Hersh Bros. Co. (Fans, etc.), 658 Mill St., Allentown, Pa.
Hershey Machine & Foundry Co., The (Steam and oil separators), Manheim, Pa.
Hervey, F. L., & Co., Inc. (Leather belting), 373 New Boston Road, Fall River, Mass.
Hess Bright Mfg. Co., The, 165 Broadway, New York (Hess Bright and "Monarch" ball bearings, distributed by S K F Industries).
Hess Warming & Ventilating Co. (Steel lockers), 1211 So. Western Ave., Chicago, Ill.; Milwaukee, Wis.
Hess & Barker (Heating specialties), 212 So. Darien St., Philadelphia, Pa.
Hess & Hopkins Leather Co. (Washers, etc.), Rockford, Ill.
Hesse-Ersted Iron Works (Sawmill machinery, etc.), East 8th & Taylor Sts., Portland, Ore.
Heston & Anderson (Woodworking machinery), 601 So. Depot Ave., Fairfield, Iowa.
Hetherington & Berner (Asphalt pumps), 701 Kentucky Ave., Indianapolis, Ind.
Hettrick Mfg. Co., The (Canvas and combination belting), 1228 Oakwood Ave., Toledo, O.
Hetzel, J. G., Estate of (Roofing cement and paint), 67 Maine St., Newark, N. J.
Hewitt, C. B., & Bros., Inc. (Friction boards), 16-24 Ferry St., New York, N. Y.
Hewitt, J. W., Machine Co. (Car movers), Neenah, Wis.
Hewitt Rubber Co. (Mechanical rubber goods), 240 Kensington Ave., Buffalo, N. Y.; 111 Broadway New York.
Hewitt Sales Co. (Babbitt metal), 5723 12th St., Detroit, Mich.
Hide Leather & Belting Co. (Leather belting), 227 S. Meridian St., Indianapolis, Ind.; Detroit; Evansville, Ind.; Memphis, Tenn.
Hiertz, Theodore, Metal Co. (Bearing metal), Alaska and Tesson Sts., St. Louis, Mo.
Higgins, John C. (Mill picks), 1218 W. Grand Ave., Chicago, Ill.
Higgins Machinery Co. (Belt clamps), 309 First St., So., Seattle, Wash.
High Point Machine Works, Inc. (Clamps), High Point, N. C.
High Speed Hammer Co. (Riveting machines), 313 Norton St., Rochester, N. Y.
High Speed Metallic Packing Co. (Metallic packing), 110 Gottschalk St., Homewood, Ill.
Highland Electro Chemical Mfg. Co. (Soldering salts), Connellsville, Pa.
Highton, Wm., & Sons Co., Nashua, N. H.
Higley Machine Co. (Machine tools), Croton Falls, N. Y.
Hilbert Machine Co. (Radial drills), 2116-22 Colerain Ave., Cincinnati, O.
Hill Clutch Machine & Foundry Co., The (Power transmission machinery), W. 65th St. and Breakwater Ave., Cleveland, O.; 50 Church St., New York, N. Y.
Hill-Curtis Co. (Sawmill and woodworking machinery), Kalamazoo, Mich.
Hill Pump Valve Co., The (Pump valves), 4601 Belmont Ave., Chicago, Ill.
Hill & Cutler Co. (Cotton waste), 176 Federal St., Boston, Mass.; New Bedford, Mass.; Lowell, Mass.
Hill & Griffith Co., The (Foundry supplies), 1262 State Ave., Cincinnati, O.; Birmingham, Ala.; Chicago, Ill.
Hilliard Corporation (Friction clutches, etc.), 102 W. 4th St., Elmira, N. Y.
Hills-McCanna Co. (Oil pumps, etc.), 2025 Elston Ave., Chicago, Ill.
Hillwood Manufacturing Co., The (Tacks, etc.), Euclid, O.
Hilton Brass Foundry, The (Plumbing brass goods), Hilton, N. J.
Himmelein & Bailey, Inc. (Leather belting), 248 Chestnut St., Philadelphia, Pa.
Hindley Gear Company (Gears), 1105 Frankford Ave., Philadelphia, Pa.
Hindley Mfg. Co. (Spring cotters), 53 John St., Valley Falls, R. I.
Hinds & Coon (Metal polish), 45 Purchase St., Boston, Mass.
Hinman, D. A., & Co. (Valves, tools, etc), Sandwich, Ill.
Hinsdale Mfg. Co. (Wrenches), 217 No. Desplaines St., Chicago, Ill.
Hisey-Wolf Machine Co. (Machine tools), Colerain and Marshall Aves., Camp Washington, Cincinnati, O.
Hitner's, Henry A., Sons Co. (Wrought iron washers), Gaul & Huntingdon Sts., Philadelphia, Pa.; 30 Church St., New York.
Hjorth Lathe & Tool Co. (Drilling attachments), 10 Tremont St., Boston, Mass.
Hjorth Tool Corp. (Wrenches, etc.), Jamestown, N. Y.
Hobbs, Clinton E., Co. (Chain hoists), 33 Pearl St., Boston, Mass.
Hobbs Mfg. Co. (Machinery, washers, etc.), 26 Salisbury St., Worcester, Mass.; New York; Chicago.
Hocking, Samuel, & Son (Reamers), Lancaster, Pa.
Hodgman Mfg. Co. (Fire sprinklers, alarm valves, etc.), Taunton, Mass.
Hodgman Rubber Co. (Shower bath curtains, etc.), 200 5th Ave., New York, N. Y.
Hoe Corporation (Pipe wrenches), Poughkeepsie, N. Y.
Hoe, R., & Co., Inc. (Saws, files and bits), 504 Grand St., New York.
Hoefer Mfg. Company (Drills, etc.), 221 So. Chicago Ave., Freeport, Ill.
Hoegger, Joseph A., Inc. (Bathroom accessories), 351 Palisade Ave., Jersey City, N. J.
Hoelscher Bros. (Mixing Valves), 1301 W. Division St., Chicago, Ill.
Hoevel Mfg. Corp. (Sandblast machines), 154 Ogden Ave., Jersey City, N. J.; 501 American Trust Bldg., Cleveland, O.
Hoffeld, R., & Co. (Washers), 63-69 Carroll St., Buffalo, N. Y.
Hoffmann, B., Mfg. Co. (Valves and fittings), 1819-25 St. Paul Ave., Milwaukee, Wis.
Hoffman-Corr Mfg. Co. (Rope, cotton waste, etc.), 312 Market St., Philadelphia, Pa.

Hoffman, George William, Co. (Metal polish), 557 E. Washington St., Indianapolis, Ind.; 116 John St., New York; 444 W. Grand Ave., Chicago; 112 Market St., San Francisco.
Hoffman Heater Co. (Water heaters), Lorain, O.
Hoffman Specialty Co. (Valves), 193 Grand St., Waterbury, Conn. Branches in principal cities.
Hoffmann & Billings Mfg. Co. (Brass goods), 100 Second St., Milwaukee, Wis.
Hofft, M. A., Co. (Stoker grates), 814 Washington Ave., Indianapolis, Ind.
Hogan Mfg. Co. (Water closet tanks), 74 Grove St., Hartford, Conn.
Hoggson & Pettis Mfg. Co., The (Tools), 141 Brewery St., New Haven, Conn.; 42 Murray St., New York; 627 W. Washington Blvd., Chicago, Ill.
Holbrook Raw Hide Co. (Rawhide hammers, gears and baskets), 748 N. Main St., Providence, R. I.
Holcomb, A. L., Co. (Saws and cutters), 15 Market Place, Grand Rapids, Mich.
Holcomb Safety Garment Co. (Protective clothing), 120 N. Jefferson St., Chicago.
Holland Engine Co., Inc. (Engines), Holland, Mich.
Holland Machine Co. (Electric pumps), 71 Eighth Ave., New York, N. Y.; S. Norwalk, Conn.
Holland Instrument Co., Parkesburg, Pa.
Holland Rubber Co. (Rubber plumbing specialties), 88 Reade St., New York, N. Y.
Hollander-Westman Tool Co. (Broaches), 566 Forest St., Arlington, N. J.
Hollands Mfg. Co. (Plumbers, gas and steamfitters' tools), 350 E. 18th St., Erie, Pa. (See index to advertisement, pages 7, 8 and 9.)
Hollingshead, R. M., Co., The (Grease, soap, polish, etc.), Camden, N. J.
Hollingsworth, Wm. (Pressure blowers), 227-29 N. Holliday St., Baltimore, Md.
Hollow Ball Company, Inc. (Metal balls), 1003 Standard Oil Bldg., Baltimore, Md.
Hollow Center Packing Co. (Packings), 6523 Euclid Ave., Cleveland, O.; 213-15 No. Desplaines St., Chicago, Ill.; Toronto, Ont.
Holly Pneumatic Systems, Inc. (Pneumatic conveyors), 452 Lexington Ave., New York, N. Y.
Holmberg, Chas., & Co. (Copper kettles, etc.), 2742 High St., Chicago.
Holmberg Steam Trap Co., The (Vacuum traps), Lindsborg, Kans.
Holmes, E. & B., Machinery Co. (Woodworking mach'y), 51 Chicago St., Buffalo, N. Y.
Holmes Metallic Packing Co. (Packing), 45 St. Clement St., Wilkes-Barre, Pa.
Holton-Abbott Mfg. Co. (Valve wheels), 61 Gorham St., West Somerville, Mass.
Holtum Mfg. Co. (Cement workers' tools), Freeport, Ill.
Holyoke Belting Co. (Belting), 66-68 Winter St., Holyoke, Mass.
Holyoke Heater Co. (Water heaters, etc.), Holyoke, Mass.
Holyoke Machine Co. (Friction clutches), 81 Thomas St., Worcester, Mass.
Home Rubber Co. (Rubber goods), Woolverton Ave., Trenton, N. J.; Chicago, El Paso, New York, Pittsburgh.
Homestead Valve Mfg. Co., Inc. (Valves), 134 6th Ave., Homestead, Pa.; 242 Lafayette St., New York (all principal cities).
Hones, Charles, A., Inc. (Soldering furnaces), 119 Grand Ave., Baldwin, Long Island, N. Y.
Hood Bros. (Mechanics' tools), 4336 Orchard St. (Frankford), Philadelphia, Pa.
Hooker Electrochemical Co. (Calcium Chloride), 25 Pine St., New York City.
Hooker Manufacturing Corp. (Sawing outfits), St. Johnsbury, Vt.
Hooker Steam Pump Works (Steam pumps), Granite Bldg., St. Louis, Mo.
Hoopes & Townsend Corp. (Bolts, nuts, etc.), 436 N. 12th St., Philadelphia, Pa.
Hoosier Metal Products, Inc. (Ice and logging tools), Columbus, Ind.
Hooven, Owens, Rentschler Co., The (Steam engines), Hamilton, O.
Hooven & Allison Company, The (Twines and cordage), Xenia, O.; Kansas City, Mo.; Minneapolis, Minn.; Seattle, Wash.; New Orleans, La.; Omaha, Neb.
Hoover Steel Ball Co. (Steel balls), Ann Arbor, Mich.; 3124 Edgehill Road, Cleveland; 180 N. Market St., Chicago; Middle City Bldg., Philadelphia. (See index to advertisement, pages 7, 8 and 9.)
Hope Engineering & Supply Co. (Gas engines and heaters), 803-806 Farmers Bank Bldg., Pittsburgh
Hope Fan & Blower Co. (Fans and driers), 1509 Central St., Kansas City, Mo.
Hope Forge & Machine Co., The (Gas engines), Mt. Vernon, Ohio.
Hope, John, & Sons, Engraving & Mfg. Co. (Graduating machines), No. 1 Mashapaug St., Providence, R. I.
Hoppen, J. E., & Sons (Grindstones), 70-74 Main St., Belleville, N. J.
Hoppes Mfg. Co. (Feed water heaters and purifiers), Belmont & Larch Sts., Springfield, O.
Horat, Joseph (Hammer moulds), Lafayette, Ind.
Hornung, J. C. (Steam traps), 343 S. Dearborn, Chicago, Ill.
Horsburgh & Scott Co., The (Gears), 5114 Hamilton St., N.E., Cleveland, O.
Horstmann, Wm. H., Co. (Foundrymen's foot protectors), 5th and Cherry Sts., Philadelphia, Pa.; 440 4th Ave., New York.
Horton, E., & Son Co. (Chucks, etc.), Windsor Locks, Conn.
Horton Manufacturing Co. (Variable speed pulleys), 3008-16 University Ave., S. E., Minneapolis, Minn.
Horton Pottery Co. (Sanitary earthenware), Chillicothe, O.
Hoskins Mfg. Co. (Pyrometers and electric furnaces), 4445 Lawton Ave., Detroit, Mich.; Boston, Chicago, New York, San Francisco, Cleveland.
Hosmer, G. A., Co. (Lubricants, belt dressing, etc.), 601 Northland Ave., Buffalo, N. Y.
Hotstream Heater Co., The (Water heaters), 9502 Richmond, Cleveland, O.
Hot-Flo Electric Co. (Water heaters), 537 7th Ave., New York, N. Y.
Houchin-Aiken Co. (Machinery), 41 Park Row, New York, N. Y.
Houchin, Thos. W., Co. (Gas burners, etc.), 304-10 Ninth St., Jersey City, N. J.
Hough, Charles N., Mfg. Co., The (Oil well supplies), Franklin, Pa.
Houghton, E. F., & Co. (Oils, packings, etc.), 240 W. Somerset St., Philadelphia, Pa. Branches in principal cities.
House, Chas. W., & Sons (Felt washers), Unionville, Conn.
Howard, E., Clock Co. (Clocks), 206 Eustis St., **Boston, Mass.; 309 Broadway, New York; 31 N. State St., Chicago.**
Howard Iron Works (Power transmission mach'y), Chicago and Granger Sts., Buffalo, N. Y.; Peoples Gas Bldg., Chicago.
Howard, H. J. M., Mfg. Co., The (Hose racks, fire extinguishers), 150 Pierce St., N. W., Washington, D. C.
Howard, L. W. (Flue dampers), 578 No. Main St., Manchester, N. H.
Howard & Morse, Inc. (Heating and ventilating blowers), 1197 DeKalb Ave., Brooklyn, N. Y.
Howe Chain Co. (Factory trucks), 110 East Clay Ave., Muskegon, Mich.; 30 Church St., New York.
Howe Safety Appliance Co. (Machine guards), Granite City, Ill.
Howe Scale Co. of Illinois (Scales and factory trucks), 1126 S. Wabash Ave., Chicago, Ill.; **Minneapolis, Cleveland, Kansas City, St. Louis.**
Howell Electric Motors Co., Howell, Mich.
Howells Mining Drill Co. (Drills), Plymouth, Pa.
Hoxite Company, The (Welding flux), 62 Summer St., Stamford, Conn.
Hoysradt & Case (Grinders), Kingston, N. Y.
Hoyt Heater Co. (Water heaters), 2838 E. 2nd St., Los Angeles, Calif.
Hoyt Metal Co. (Bearing metal, etc.), Boatmen's Bank Bldg., St. Louis; 940 W. Huron St., Chicago; 308 Moffat Block, Detroit; 111 Broadway, New York.
Hubbard & Co. (Wrought iron washers), 63d and Butler Sts., Pittsburgh, Pa.
Hubbard, M. D., Spring Co. (Core hole plugs), South Saginaw & Jessie Sts., Pontiac, Mich.
Hubbard Motor Co., The (Gas engines, Middletown, Conn.
Hubbell, Harvey, Inc. (Tapping machines), State and Bostwick Ave., Bridgeport, Conn.; New York; Chicago; San Francisco.
Hubbert, B. H. (Steam jacketed kettles), 3601-3 E. Pratt St., Baltimore, Md.
Hudson Belting Co. (Leather belting), 79 Beacon St., Worcester, Mass.
Hudson Boiler Mfg. Co. (Boilers and heaters), 11th and Hudson St., Hoboken, N. J.
Hudson Brass Works (Shower baths and fixtures), 16 Nassau St., Brooklyn, N. Y.
Hudson-Sharp Machine Co. (Pumps and machinery), 1207 Main St., Green Bay, Wis.
Huffman Manufacturing Co., The (Blow torches), Dayton, O.
Hughes Bros. (Miners' lamps), 410 N. 9th Ave., Scranton, Pa.
Hughes Bros. (Laundry tray stands), 1514 E. Franklin Ave., Minneapolis, Minn.
Hughes Electric Heating Co. (Electric ovens), 5660 Taylor St., Chicago, Ill.
Hughes-Keenan Co. (Steel partitions), Mansfield, O.
Hughes Steel Equipment Co. (Factory trucks and stools), Allegan, Mich.
Hughes, W. R., Co., Inc., The (Bathroom fittings), 507 W. 35th St., New York, N. Y.
Huhn Mfg. Co. (Metallic packing), 1391-3 Sedgwick Ave., New York; 35 N. Dearborn St., Chicago; 330 Venture St., Pittsburgh, Pa.; 365 Ogden St., Newark, N. J.

Hugo Mfg. Co. (Gas burners), 49th Ave. West and Superior St., Duluth, Minn.
Hull-Whiting Belting Co., Inc. (Leather belting), 24 Noble Ct., Cleveland, O.
Hullhorst Micro Tool Co. (Engine lathes), Toledo, O.
Hulson Grate Co. (Grates), 209-11 Johnson St., Keokuk, Ia
Humphrey Co., Div. of Ruud Mfg. Co. (Water heaters), Kalamazoo, Mich.
Humphrey, H. W. (Washers), Unionville, Conn.
Humphryes Mfg. Co., The (Hand and power pumps, etc.), Mansfield, O.; 1800 Fisher Bldg., Chicago, Ill.
Hunger, H. J., Brass Co. (Plumbing brass goods), 1761 E. 27th St., Cleveland, O.
Hungerford, U. T., Brass & Copper Co. (Metal goods), 80 Lafayette St., New York, N. Y.; Lombard and South Sts., Baltimore; Postal Telegraph Bldg., San Francisco; 411-29 D St., Boston; 510 Arch St., Philadelphia.
Hungerford & Terry, Inc. (Filters, etc.), Clayton, N. J.
Hunt, C. B., & Son (Hose couplings), Salem, O.
Hunt, C. W., Co., Inc. (Manila rope), 1580 Richmond Ter., West New Brighton, N. Y. Branches in principal cities.
Hunt, H. W., Co. (Brass pipe nipples), Reading, Mass.
Hunt, Helm, Ferris & Co. (Tackle blocks), Harvard, Ill.; Industrial Bldg., Albany, N. Y.; 1811 E. 7th St., Los Angeles, Calif; 283 Minna St., San Francisco, Calif.
Hunt, James B., Mfg. Co. (Fire extinguishers, etc.), Forst-Richey Bldg., Trenton, N. J.
Hunt Mfg. Co. (Reamers), 118 Hollingsworth St., Baltimore, Md.
Hunt, Rodney, Machine Co. (Bearings, blocks, hoists, pumps, etc.), Orange, Mass.
Hunt, Wm. & Son (Floor drains), 1127 So. Grand Blvd., St. Louis, Mo.
Hunter, James, Machine Co. (Power transmission mach'y), North Adams, Mass.; 70 Kilby St., Boston, Mass.
Hunter Pressed Steel Co. (Grease cups), Lansdale, Pa. (See index to advertisement, pages 7, 8 and 9.)
Hunter Saw & Machine Co. (Circular saws), 57th and Butler Sts., Pittsburgh, Pa.; branches in principal cities.
Huntington Laboratories, Inc. (Drain pipe cleaner), Huntington, Ind.
Huron Industries, Inc. (Shaft couplings), 944 Harper Ave., Detroit, Mich.
Huron Manufacturing Co. (Boiler tube plugs), 3240 E. Woodbridge St., Detroit, Mich.
Husky Wrench Company (Wrenches), 27th & Florence Sts., Milwaukee, Wis.
Hussey, C. G., & Co. (Copper rivets, sheet and bar copper, etc.), 2850 Second Ave., Pittsburgh, Pa.
Hussey, McCann & Co. (Grease extractors, steam traps, etc.), 87 Warren St., New York, N. Y.
Hutchinson Mfg. Co., Inc. (Woodworking machines), Norristown, Pa.
Hutchison Regulator Co. (Damper regulators, etc.), 507 Metropolitan Bank Bldg., Washington, D. C.
Huther Bros. Saw Mfg. Co., Inc. (Saws), 1190 University Ave., Rochester, N. Y.; 106 3rd St., St. Louis, Mo.
Hutter, Karl, Inc. (China valve wheels), 241 Lafayette St., New York, N. Y.
Huyette, Paul B., Co., Inc., The (Steam specialties), 5 South 18th, Philadelphia, Pa.; 149 Broadway, New York.
Hyatt Roller Bearing Co. (Power transmission machinery), Box 476, Newark, N. J.
Hyde, R. M., Regulator Mfg. Co. (Damper regulators, etc.), Westfield, N. Y.
Hydraulic Press Mfg. Co., The (Hydraulic presses, pumps, valves and fittings), 20 E. Broad St., Columbus, O.; 39-41 Cortlandt St., New York; Mutual Life Bldg., Buffalo; Kirby Bldg., Cleveland.
Hygeia Filter Co. (Water filters), 3422 Denton Ave., Detroit, Mich.; 70 W. Lake St., Chicago.; 371 Pearl St., Buffalo; 1523 Commerce St., Dallas; 162 William St., New York; 873 Market St., San Francisco.
Hygeia Respirator Co., Inc. (Gas masks, etc.), 532 E. 82d St., New York.
Hygienic Humidifier Co. (Humidifiers, etc.) 101 No. Front St., Portland, Ore.
Hygienic Products Co., The (Enamel cleaner), 719 Walnut St., S. E. Canton, O.
Hyland, W. J., Mfg. Co. (Ball cocks, etc.), 151 Dwight St., Springfield, Mass.
Hynes & Cox Electric Corp. (Electric heating appliances), 406 North Pearl St., Albany, N. Y.
Hy-Tools, Inc. (File and tool handles), 5-15 Newfield St., Buffalo, N. Y.

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I. X. L. Pump Mfg. Co., The (Water closets and fittings), 957 No. 9th St., Philadelphia, Pa.

Ideal Chemical Co. (Boiler compounds), 135 E. Market St., Indianapolis, Ind.
Ideal Clamp Mfg. Co. (Hose clamps), 200 Bradford St., Brooklyn, N. Y.
Ideal Commutator Dresser Co. (Commutator dressers), Sycamore, Ill.
Ideal Concrete Machinery Co. (Concrete mixers), 5000 Spring Grove Ave., Cincinnati, O.
Ideal Face Shield Co. (Welders' face shields), 468 No. Garfield Ave., Columbus, O.
Ideal Foundry & Machinery Co. (Heads, dies), 10th Ave. & 8th St., Beaver Falls, Pa.
Ideal Furnace Co. (Heating boilers, laundry heaters, etc.), 530 W. Jefferson St., Detroit, Mich.
Ideal Heating Co. (Radiators, etc.), 915 Gates Ave., Brooklyn, N. Y.
Ideal Heating Equipment Co. (Radiator valves and traps), 1246 W. 4th St., Cleveland, O.
Ideal Portable Vise Post Co. (Vise posts), Albert Lea, Minn.
Ideal Specialty Corp. (Boiler spuds and drills), 103 E. 125th St., New York, N. Y.
Ideal Stencil Machine Co. (Machines, Stencil Cutting), A and Iowa Sts., Belleville, Ill.
Ideal Tank & Supply Co., Peoria, Ill.
Igoe Brothers (Wire nails), Avenue A and Poinier St., Newark, N. J.
Ilg Electric Ventilating Co. (Fans and blowers), 2850 No. Crawford Ave., Chicago, Ill.; branches in principal cities.
Illinois Boiler Cleaning Compound Co. (Boiler compound), 659 Irving Park Blvd., Chicago, Ill.
Illinois Engineering Co. (Steam fittings), Racine Ave. and 21st St., Chicago, Ill.; New York; Los Angeles; San Francisco.
Illinois Fire-Proof Covering Co., Inc., The (pipe covering and boiler asbestos), 216 W. Kinzie St., Chicago.
Illinois Iron & Bolt Co. (Engine jacks and anvils), Carpentersville, Ill.
Illinois Malleable Iron Co. (Plumbers', steam, gas and water works supplies), 1801-25 Diversey Blvd., Chicago, Ill.
(See index to advertisement, pages 7, 8 and 9.)
Illinois Mechanical Leather Co. (Leather belting), 1720 No. Winchester Ave., Chicago.
Illinois Sheet Metal Works, Chicago, Ill.
Illinois Smelting & Refining Co. (Bearing metal, etc.), 410 No. Peoria St., Chicago, Ill.
Illinois Steel Co. (Steel), 208 S. LaSalle St., Chicago.
Illinois Stoker Co. (Chain grate stokers), Alton, Ill.
Illinois Tool Works (Gears), 2515 No. Keeler Ave., Chicago, Ill.; branches in principal cities.
Illinois Valve & Mfg. Co. (Plumbing brass goods), 4247 Ravenswood Ave., Chicago, Ill.
Imperial Belting Co. (Belting), Lincoln and Kinzie Sts., Chicago, Ill.; 143 Liberty St., New York.
Imperial Brass Mfg. Co., The (Welding and auto equipment), 1200 W. Harrison St., Chicago, Ill. (See index to advertisement, pages 7, 8 and 9.)
Imperial Machine Co. (Gasoline engines), 1611 Central Ave., Minneapolis, Minn.
Imperial Metal Products Co. (Lathes), Ionia and Newberry Sts., Grand Rapids, Mich.
Imperial Packing Corp. (Packings), 73 W. Broadway, New York.
Imperial Polish Co. (Metal polish), 120 Walnut St., Philadelphia, Pa.
Improved Appliance Co. (Combustion and gas engineers), 366 Gerard Ave., Brooklyn, N. Y.
Improved Gauge Mfg. Co. (Gauges, etc.), 101-105 Canal St., Syracuse.
Independent Aetna Sprinkler Co., 2325 No. 11th St., Philadelphia, Pa.
Independent Pneumatic Tool Co. (Pneumatic tools), 600 W. Jackson Blvd., Chicago, Ill.; Boston, Birmingham, Ala.; Cleveland, O.; Detroit, Mich.; New York, Philadelphia, Pittsburgh, San Francisco, St. Louis, Montreal, Toronto.
Independent Soil Pipe Co. (Cast iron soil pipe and fittings), Anniston, Ala. (Gulf States Pipe Corp., Anniston, Ala., exclusive sales agents.)
Indian Refining Co. of New York (Oils, grease, belt dressing), 17 State St., New York, N. Y.
Indiana Air Pump Co. (Air pumps), 816 Indiana Pythian Bldg., Indianapolis, Ind.
Indiana Brass Co. (Pipe fittings), Frankfort, Ind.
Indiana Fan Co. (Fans and blowers), 40 E. South St., Indianapolis, Ind.
Indiana Foundry Co. (Sand dryers, etc.), Indiana, Pa.
Indiana Rolling Mill Co. (Shovels), New Castle, Ind.
Indiana Rubber & Insulated Wire Co. (Plumbers' rubber goods), Jonesboro, Ind.
Indiana Sanitary Pottery Co. (Vitreous sanitary ware), Hammond, Ind.
Indianapolis Brush & Broom Mfg. Co. (Factory brooms and brushes), 26-30 Brush St., Indianapolis, Ind.; 706 Board of Trade Bldg., Boston; 220 Broadway, New York.
Indicating Caliper Corp. (Calipers), 506 E. 19th St., New York, N. Y.

Industrial Gloves Corp. (Gloves), 1213 Fullerton Ave., Chicago, Ill.
Industrial Works, The (Cranes, etc.), Bay City, Mich.; 50 Church St., New York; 716 Franklin Trust Bldg., Philadelphia; McCormick Bldg., Chicago; Book Bldg., Detroit.
Ingalls & Co. (Friction board), Castleton, N. Y.
Ingersoll Milling Machine Co., The (Milling machines), Douglas and Willoughby Sts., Rockford, Ill.
Ingersoll-Rand Co. (Pumps, etc.), 11 Broadway, New York, N. Y.
Ingram-Richardson Mfg. Co. (Danger signs), College Hill, Beaver Falls, Pa.
Inland Steel Co. (Sheets, plates, etc.), 38 S. Dearborn St., Chicago, Ill.
Insley Mfg. Co. (Contractors' brackets and hoists), Olney and E. St. Clair Sts., Indianapolis., Ind.
Instant Electric Water Heater Co. (Water heaters), 304 E. Washington Ave., Bridgeport, Conn.
Instant Water Heater Co. (Water heaters), North Manchester, Ind.
Instantaneous Fire Extinguisher Co. (Chemical fire extinguishers), Ardsley-on-Hudson, N. Y.
Instantaneous Glue Converter Co. (Glue heaters) 3752 Montgomery Ave., Cincinnati, O.
Instantaneous Water Heater Co. (Water heaters), Kalamazoo, Mich.
Insulatine Co. (Gasfitters' cement), 1 Broadway, New York, N. Y.
International Boiler Compound Co. (Boiler compounds, etc.), 2729 Quinn St., Chicago, Ill.
International Boiler Works Co. (Boilers), East Stroudsburg, Pa.; Arcade Bldg., Philadelphia.
International Chemical Co. (Closet bowl cleaner), 3140 So. Canal St., Chicago, Ill.
International Chemical Co. (Metal cleaner), 2628 No. Mascher St., Philadelphia, Pa.
International Clay Machinery Co. (Industrial cars), Dayton, O.; New York City; Pittsburgh.
International Combustion Engineering Corp., (Stokers, fuel oil burners and pumps), 43 Broad St., New York; branch offices in principal cities.
International Engineering Works, Inc. (Steam boilers), Framingham, Mass.
International Filter Co. (Water filters), 333 W. 25th Pl., Chicago, Ill.
International Glue Co. (Belt cement), 325 Marginal St., Boston, 28 Mass.
International Heating Co. (Oil burners), 715 So. 14th St., Saint Louis, Mo.
International Heater Co. (Heating boilers), 21 Park Ave., Utica, N. Y.
International Machine Tool Co. (Lathes), 1124 W. 21st St. and Belt Ry., Indianapolis.
International Metal Polish Co. (Metal polish), Quill St. and Belt Ry., Indianapolis. Ind.; New York.
International Motor Co. (Trucks, fire engines, etc.) 25 Broadway, New York, N. Y.
International Nickel Co. (Monel metal), 67 Wall St., New York.
International Oxygen Co. (Oxygen and hydrogen generators, 796 Frelinghuysen Ave., Newark, N. J.; Pittsburgh; Toledo; 817 Stock Exchange Bldg., Chicago, Ill.
International Refining & Manufacturing Co. (Cutting lubricants), Evanston, Ill.
International Sprinkler Co. (Sprinkler systems), 123 William St., New York, N. Y.; 2019 Washington Ave., Philadelphia.
Inter-Ocean Oil Co. (Lubricating oils), 171 N. Green St., Chicago, Ill.; Kansas City, Mo.
Interstate Equipment Co. (Concrete mixers), 1703 Ernsperger St., South Bend, Ind.
Interstate Foundry Co. (Cast iron soil pipe and fittings), Anniston, Ala. (See Gulf States Pipe Corp., Anniston, Ala., exclusive sales agents.)
Interstate Iron & Steel Co. (Iron and steel bars), 104 S. Michigan Ave., Chicago, Ill.; New York; Cleveland; Detroit; St. Paul; San Francisco; Kansas City; Milwaukee; St. Louis.
Invincible Blow Pipe & Laundry Equipment Co. (Blower system equipment), 1822 No. Lamon Ave., Chicago, Ill.
Invincible Vacuum Cleaner Mfg. Co. (Industrial vacuum cleaners), Dover, O.
Invisibowl Mfg. Corporation (Concealed lavatories), 38 So. Dearborn St., Chicago, Ill.
Iowa Valve Co. (Fire hydrants),, Oskaloosa, Ia.
Ireland & Matthews Mfg. Co. (Plumbing brass goods), Beard and Chatfield Sts., Detroit, Mich.
Ireson, Chas. L. (Leather belting), 221 High St., Boston, Mass.
Iron City Sanitary Mfg. Co. (Baths, lavatories, etc.), Oliver Bldg., Pittsburgh, Pa.
Iron City Tool Works, Ltd. (Railroad track tools), 3201 Smallman St., Pittsburgh, Pa.
Iron Fireman Mfg. Co. (Coal Burners), Portland, Oregon.
Ironsides Co., The (Belt dressing, etc.), 471 E. Broad St., Columbus, O.
Ironsides Pottery Co. (Sanitary earthenware), Bordentown, N. J.

Irving Mfg. & Tool Co. (Bolt clippers), 157 Chambers St., New York, N. Y.
Irving, Robert M. (Rotary hacksaws), Gurnsey Bldg., Syracuse, N. Y.
Irvington Machine Works (Cut-off saws), Grand Rapids, Mich.
Irvington Mfg. Co., The (Tools), 124 Colt Ave., Irvington, N. J.
Irwin Auger Bit Co., The (Augers and bits), Wilmington, O.
Irwin, H. R., Mfg. Co., (Electric Hand Saws), Front and Pike Sts., Cincinnati, Ohio.
Isert, John H., Company, Inc. (Pipe hangers), 1232 Rowan St., Louisville, Ky.
Ives, The W. A., Mfg. Co. (Wood bits), 464 Pratt St., Meriden, Conn.
Ivins, Ellwood, Tube Works (Tubing), Coventry & Ivins Lane, Philadelphia; 645 Washington Blvd., Chicago.
Ivoreed Covering Co. (Water closet seats), Waterbury, Conn.
Iwan Bros. (Earth augers), 1503 Prairie Ave., South Bend, Ind.

J

J. R. S. Specialties Mfg. Co., Inc., The (Plumbing and heating specialties), 122 Greenwich St., New York, N. Y. Factory: Academy and Ryder Sts., Patchogue, N. Y.
J. & H. Electric Co. (Demagnetizers and chucks), 161 Clifford St., Providence, R. I.
Jackson Compressor Co. (Air compressors), 237 S. Cherokee St., Denver, Colo.
Jackson, Byron, Pump Mfg. Co. (Power pumps and pumping engines), 303 E. 3rd St., Los Angeles, Calif.; Portland, Ore.; Salt Lake City, Utah; Visalia, Cal.
Jackson, Isaac, Belt Fastener Co. (Belt fasteners), 51 Barclay St., New York, N. Y.
Jackson Mfg. Co. (Wheelbarrows), Elliott & P. R. R., Harrisburg, Pa.
Jackwill Mfg. Co. (Pipe nipples), 723 E. 140th St., New York.
Jacobs, E. H., Mfg. Co. (Loom straps), Danielson, Conn.
Jacobs Mfg. Co., The (Drill chucks), 2074 Park St., Hartford, Conn.
Jacobson, I. M., Sons Company (Metals), 15304 Detroit St., H. P., Detroit, Mich.
Jaeger Machine Co. (Concrete mixers), 520 Dublin Ave., Columbus, O.
Jaeger Portable Power Corp. (Portable woodworkers and pumps), 1326-34 E. Woodbridge St., Detroit, Mich.
Jambor Tool & Stamping Co. (Fusible plugs), Calhoun and 30th Sts., Milwaukee, Wis.
James, D. O. Mfg. Co. (Gears), 1120 W. Monroe St., Chicago, Ill.
Jamestown Boiler Works (Boilers, etc.), Jamestown, N. Y.
Jamieson, M. W., & Co. (Pumps), Warren, Pa.
Janette Mfg. Co. (Electric grinders, etc.), 556 W. Monroe St., Chicago, Ill.; New York, Philadelphia, Detroit.
Janos Asbestos Co. (Packing), 26 Cortlandt St., New York.
Jarecki Mfg. Co. (Valves, fittings, etc.), Erie, Penna.
Jarvies Gas & Oil Burner Co., Inc. (Fuel oil burners), 4022 Belleview Ave., Kansas City, Mo.
Jarvis, Charles L. Co., The (Chucks, etc.), Gildersleeve, Conn.
Jarvis, Benj. E., Inc. (Band saw machines), 113 Mechanic St., Newark, N. J.
Jefferis, Richard W., Co. (Steel lockers), 11th and Linden Sts., Camden, N. J.
Jefferson Union Co. (Unions), 442 Massachusetts Ave., Lexington, Mass.
Jeffrey Mfg. Co. (Elevating, conveying and power transmission mach'y), First Ave. and Fourth St., Columbus, O.
Jelliff, C. O., Corp. (Wire strainers), Southport, Conn.
Jencks, E., Mfg. Co. (Belt fasteners), 28 Union St., Worcester, Mass.
Jenkins Bros. (Valves and packing), 80-88 White St., New York, N. Y.; 524 Atlantic Ave., Boston; 133 N. 7th St., Philadelphia; 646 Wash. Boul., Chicago; Elizabeth, N. J.; Bridgeport, Conn. (See index to advertisement, pages 7, 8 and 9).
Jenkins Machine Co. (Woodworking machinery), Sheboygan, Wis.
Jenkins Mfg. Co. (Plumbers' brass goods), Bloomfield, N. J.
Jennings, C. E., & Co. (Saws, chisels, augers), 86 Warren St., New York, N. Y.
Jennings, Russell, Mfg. Co., The (Small tools), Chester, Conn.
Jerguson Gauge & Valve Co. (Engineering specialties), Winter Hill, 45 Somerville, Mass.
Jerry Bros. Belting Co. (Leather belting), 1908 E. Main St., Richmond, Va.
Jesseph Saw & Tool Works (Band saws and knives), 6919 E. Jefferson Ave., Detroit, Mich.

Jessop Steel Co. (Steel mill products), Washington, Pa.
Jessop, Wm., & Sons, Inc. (Tool steel), 91 John St., New York, N. Y.
Jewell Belt Hook Co., The (Belt fasteners), Hartford, Conn.
Jewell Belting Co. (Leather belting), Oakwood Ave. and Tolles St., Hartford, Conn.; Chicago, New York, N. Y.
Jewett Refrigerator Co. (Drinking fountains), 27 Chandler St., Buffalo, N. Y.
Jiffy Fire Hose Rack Co., The (Hose racks, etc.), 133 W. 52nd St., New York, N. Y.
Jobbers Mfg. Co. (Belt dressing), Room 2219, 435 N. Michigan Ave., Chicago, Ill.
Johnnar Mfg. & Sales Corp. (Saw guards, etc.), 400 Ward Bldg., Rochester, N. Y.
John-Sons Gage Works (Screwthread gages), 67 Blue Hills Ave., Hartford, Conn.
Johns-Manville Corporation (Asbestos products), 292 Madison Ave., at 41st St., New York, N. Y.; branches in all principal cities.
Johns-Pratt Co., The (Sheet packings), 160 Huyshope St., Hartford, Conn.; Boston, New York, Philadelphia, Pittsburgh, Chicago, St. Louis, San Francisco.
Johnson Acetylene Gas Co. (Acetylene gas generators), Crawfordsville, Ind.
Johnson Belting Co. (Leather belting), 423 E. 56th St., New York.
Johnson, Bernard F. (Center finders), 3476 Boulevard, Jersey City, N. J.
Johnson Bronze Co. (Bronze bushings and bars), New Castle, Pa.
Johnson Compound & Supply Co. (Boiler compound), 8 Furnace St., Rochester, N. Y.
Johnson, E. P., Rule Mfg. Co. (Rules and calipers), 565 W. Washington Blvd., Chicago, Ill.
Johnson Fan & Blower Co. (Blowers), 1319 W. Lake St., Chicago, Ill.
Johnson Gas Appliance Co. (Metal treating furnaces), 520 E Ave., W., Cedar Rapids, Ia.
Johnson, I. H., Jr., Co., Inc. (Lathes), 337 N. 15th St., Philadelphia, Pa.
Johnson, Henry, Company, Inc., The (Packings), Gates Ave. and Boulevard, Jersey City, N. J.
Johnson, J. D., Co., Inc. (Plumbers' brass goods, also C. I. soil pipe and fittings), 139 No. 7th St., Philadelphia, Pa.
Johnson, J. W., Co. (Shower curtains and canvas goods), 1231-47 Macedonia St., Chicago.
Johnson Mfg. Co. (Soldering fluid), 729 W. Washington Blvd., Chicago, Ill.
Johnson Mfg. Co., The (Engineers' tools), Urbana, O.
Johnson-Murphy Co. (Gas lighters), 10226 Woodward Ave., Detroit, Mich.
Johnson, O. A., & Sons (Die stocks), 6522 S. Winchester Ave., Chicago, Ill.
Johnson, S. T., Oil Burner Co. (Fuel oil burners), 940 Arlington St., Oakland, Cal.
Johnson Service Company (Thermostats, humidifiers, etc.), 149 Michigan St., Milwaukee, Wis.
Johnson Tool Co., Inc. (Sprinklers, tops), 197 Eddy St., Providence, R. I.
Johnson, W. H., & Son Co. (Plumbing and heating supplies), 330-32 East St. Joe St., Indianapolis, Ind.
Johnson, Wm., Firm of (Plumbers' tools), Brenner and Kent Sts., Newark, N. J.
(See index to advertisement, pages 7, 8 and 9.)
Johnson & Johnson (First aid cabinets), New Brunswick, N. J.
Johnson & Miller (Test indicators), 42 Murray St., New York City.
Johnston-Morehouse-Dickey Co. (Brattice cloth), 120 3rd Ave., Pittsburgh, Pa.
Johnston, Wm. T., Co., The (Boilers, etc.), 306 Vine St., Cincinnati, O.
Johnston & Chapman Co. (Coal and coke screens), 2925 Carroll Ave., Chicago, Ill.
Johnston & Jennings Co., The (Cranes, etc.), Addison Rd. and N. Y. C. R. R., Cleveland, O.
Joliet Wrought Washer Co. (Washers), Joliet, Ill.
Jones Brass & Iron Specialty Co., Inc., 1820 W. 22nd St., Chicago, Ill.
Jones Drill & Specialty Corp. (Electric drills), 245 Seventh Ave., New York, N. Y.
Jones, Harry H. (Belt fasteners), Lancaster, N. H.
Jones Hollow Ware Co. (Porcelain enameled plumbing ware), Forrest and Eager Sts., Baltimore, Md.
Jones, L. W., Tool Co. (Drilling Machines), New York, N. Y.
Jones Machine Tool Works (Machine Tools), Philadelphia, Pa.
Jones Mfg. Co. (Water filters), 243 Franklin St., Boston, Mass.
Jones Superior Machine Co. (Woodworking mach'y), 1258-72 W. North Ave., Chicago, Ill.
Jones, W. A., Foundry & Machine Co. (Cast iron pulleys, etc.), 4401 West Roosevelt Road, Chicago, Ill.; 26 Murray St., New York, N. Y.; Union Trust Bldg., Pittsburgh; 1st Wisc. Nat'l Bank Bldg., Milwaukee; 226 Superior St., Cleveland; 184 Main St., Buffalo.
Jones, W. E. (Molders' gage), Box 799 Rochester, N. Y.
Jones & Lamson Machine Co. (Lathes, etc.), Springfield, Vt.; 503 Market St., San Francisco.
Jones & Laughlin Steel Corp. (Steel mill products), Ross St., Pittsburgh, Pa.
Jordan Bros., Inc. (Electric grip hoists), 74 Beekman St., New York, N. Y.
Jordan & Steele Mfg. Co., The (Sand handling machinery), Charlotte, Mich.
Josam Mfg. Co., The (Floor and drain traps, etc.), Michigan City, Ind.; Cleveland, O.
Joslin, A. D., Mfg. Co. (Steel Stamps), 123 Arthur St., Manistee, Mich.
Jost's, Edmund, Sons (Indicators and oil burners), 58 First St., Newark, N. J.
Joyce-Cridland Co., The (Jacks), 315 East Linden Ave., Dayton, O. (See index to advertisement, pages 7, 8 and 9.)
Joyce-Koebel Company, Inc., The (Industrial diamonds), 39 W. 32d St., New York, N. Y.
Judd, Earl, Corp. (Water closet seats), Wrigley Bldg., Chicago, Ill.
Judd & Leland Mfg. Co. (Packing, etc.), Clifton Springs, N. Y.
Judson Governor Co., The (Governors, cocks, etc.), Brown's Race, Rochester, N. Y.
Jumbo Heater & Mfg. Co., The (Garage heaters, pipe hangers, etc.), 6811 Superior Ave., Cleveland, O.
Jumbo Mfg. Co., (Pipe tongs), 421 Wood St., Pittsburg, Pa.
Justice, Philip S., & Co. (Jacks, etc.), 421 Chestnut St., Philadelphia, Pa.
Justrite Mfg. Co., Inc. (Oil and waste cans, etc.), 2052-2082 Southport Ave., Chicago, Ill.
Justus Steam Trap Company (Steam traps), Napanoch, N. Y.
Juvenile Wood Products, Inc. (Toilet seats), Fort Wayne, Ind.

K

K. & M. Steam Engineering Co. (Steam Traps), 94 Franklin Ave., West Orange, N. J.
K-D Manufacturing Company (Hack saw frames), Lancaster, Pa.
K. E. K., Mfg. Co., Inc. (Boiler compound), 112-16 Pearl St., Syracuse, N. Y.
K.-G. Welding & Cutting Co., Inc., (Welding outfits), 556 W. 34th St., New York, N. Y.; 929 Chestnut St., Philadelphia; 104 Wood St., Pittsburgh.
K. M. Mfg. Co. (Grease cups), Factories Bldg., Toledo, Ohio.
Kaalot Mfg. Co., The (Tool handles, etc.), 3927 No. Kedzie Ave., Chicago, Ill.
Kahlenberg Bros. Co. (Gas engines), Two Rivers, Wis.
Kalamazoo Fdy. & Machine Co. (Trenching braces), 578 E. Main St., Kalamazoo, Mich.
Kalamazoo Loose Leaf Binder Co. (Catalog binders), Kalamazoo, Mich.
Kalamazoo Railway Supply Co. (Railroad tools and supplies), Kalamazoo, Mich.
Kalamazoo Sanitary Mfg. Co. (Plumbing supplies), Kalamazoo, Mich.
Kalamazoo Steel Goods Co. (Shop furniture), Kalamazoo, Mich.
Kales Stamping Co. (Washers), 1657 West LaFayette Blvd., Detroit, Mich.
Kaltenthaler, H. J. (Pipe and fittings), 234 Cherry St., Philadelphia, Pa.; 120 Liberty St., New York, N. Y.
Kane & Roach (Machine shears), Niagara and Shonnar Sts., Syracuse, N. Y.
Kansas City Bolt & Nut Co. (Screw machine products), Sheffield Station, Kansas City, Mo.
Kant-Rust Products Corp. (Rust preventive), 613 St. Georges Ave., Rahway, N. J.
Kant Slip Mfg. Co. (Belt dressing), 6354 St. Lawrence Ave., Chicago, Ill.
Karas Electric Co. (Blow torches), 4040 No. Rockwell St., Chicago.
Karwill Specialty Company (Floor flanges), 103 Park Ave., New York, N. Y.
Kasenit Co. (Case hardening compounds), 120 Liberty St., New York, N. Y.
Kasper Stamp & Seal Co. (Steel stamps), 914 Pine St., St. Louis, Mo.
Katzinger, Edward, Co. (Gas and oil burning furnaces), 1959 No. Cicero Ave., Chicago, Ill.
Kaustine Co., Inc. (Septic tanks), 745 Main St., Buffalo, N. Y.
Kautz, Fred C., & Co. (Steel stamps), 2633-35 W. Lake St., Chicago, Ill.
Kearney & Trecker Corporation (Milling machines), West Allis, Milwaukee, Wis.; Cleveland, Chicago, New York.

Keasbey & Mattison Co. (Asbestos products), Ambler, Pa.; 31 Farnsworth St., Boston; branches in all principal cities.
Keasbey, Robt. A., Co. (Packings), 445 West St., New York, N. Y.
Keating, E. F., Pipe Bending & Supply Co. (Boiler tubes), Hartford, Conn.; 452 Water St., New York, N. Y.
Keating Valve Co., Inc. (W. C. flush valves), 73 Taylor St., Springfield, Mass.
Keckley, O. C., Company (Water gauge specialties), 565 W. Washington Blvd., Chicago, Ill.
Keeler, E., Co. (Boilers, tanks, etc.), 238 West St., Williamsport, Pa.; New York; Philadelphia; Pittsburgh; Chicago; Boston.
Keeley, James J., Boiler Works (Heating boilers), Jackson, Mich.
Keeley Stove Co. (Laundry heaters), Columbia, Pa.
Keenan Structural Slate Co. (Plumbers' slate), Bangor, Pa.
Keeney Mfg. Co., The, Newington, Conn.
Kees, F. D., Mfg. Co. (Damper regulators), Beatrice, Neb.
Keller Glove Manufacturing Co., Inc. (Industrial gloves), Plumsteadville, Pa.
Keller Mechanical Engineering Corp. (Grinders), 70 Washington St., Brooklyn, N. Y.
Keller, William H., Inc. (Pneumatic tools), Grand Haven, Mich.
Kelley Electric Machine Co. (Electric router), 111 Dearborn St., Buffalo, N. Y.
Kellogg, M. W., Co., The (Welded pipe fittings, etc.), 7 Dey St., New York, N. Y.
Kellogg Mfg. Co. (Air pumps, etc.), 97 Humboldt St., Rochester, N. Y.; Detroit.
Kellogg, Spencer & Sons, Inc. (Core oils), Niagara Sq., Buffalo, N. Y.
Kelly Axe Mfg. Co. (Axes), Charleston, W. Va.
Kelly Brass Works (Radiator valves), 226 W. Ontario St., Chicago, Ill.
Kelly Foundry & Machine Co. (Boiler castings, grates, etc.), 9th and Pearl Sts., Goshen, Ind.
Kelly Graphite Mills, The (Graphite), 355 West 26th St., New York, N. Y.; Chicago, Hamilton, O.; Philadelphia, Pa.; Worcester, Mass.
Kelly-Linehan Belting Co. (Leather belting), 33 Minna St., San Francisco, Calif.
Kelly Lubricator Co. (Oil cups), Industrial Bldg., Syracuse, N. Y.
Kelly, R. A., Co., The (Metal shapers), Box 197, Xenia, O.; 406 Magazine St., New Orleans, La.
Kelly Reamer Co., The (Reamers and boring tools), 3705 West 73rd St., Cleveland, O.
Kelly, Thos., & Bro. (Factory water closets), 3422-26 W. Lake St., Chicago, Ill.
Kelly Valve Company (Valves), South of Nims and Getty Ave., Muskegon, Mich.
Kemoshyne Products, Inc. (Polishes and cleaners), 1025 Everett St., Camden, N. J.
Kemp, C. M., Mfg. Co. (Cellar drainers and pipe cutters), 405-413 E. Oliver St., Baltimore, Md.
Kempe, H. F., & Co., (Belt lacing), 27 N. Jefferson St., Chicago, Ill.
Kempsmith Mfg. Co., The (Milling machines), 45th and Rogers Sts., Milwaukee, Wis.
Kendallville Broom & Brush Co. (Brooms and brushes), Kendallville, Ind.
Kendrick Valve & Washer Co. (Washers, cups, etc.), 316 E. Water St., Syracuse, N. Y.
Kendrick & Davis (Small tools), Lebanon, N. H.
Kennedy, J. E. Corp. (Plumbers' force pump), 79 Madison Ave., New York, N. Y.
Kennedy, Ralph (Sawing machines), 111 No. 7th St., Philadelphia, Pa.
Kennedy-McCandless Corp. (Child's water closet seats, etc.), 1030 Jay St., Rochester, N. Y.
Kennedy Manufacturing Company (Steel tool chests), Tyler St., Van Wert, O.
Kennedy, Wm. H., & Sons, Co. (Hose couplings), 2931 Fulton St., Chicago, Ill.
Kennedy Valve Mfg. Co. (Valves and hydrants), Elmira, N. Y.; branches in principal cities. (See index to advertisement, pages 7, 8 and 9.)
Kenney-Cutting Products Corp., The (Shower baths, etc.), 507 5th Ave., New York, N. Y.
Kenney Mfg. Co. (Flushometers), 59 Pearl St., New York, N. Y.
Kent Company, The, Inc. (Floor scrubbing machines), 528 W. Dominick St., Rome, N. Y.
Kent, F. C., Co. (Bent tube specialties), 65 Grace St., Irvington, N. J.
Kent Machine Co. (Keg trucks), Cuyahoga Falls, Ohio.
Kent Mfg. Co. (Woodworking machinery), Faribault, Minn.
Kenway, P. N. (Pipe hangers), 248 Boylston St., Boston, Mass.
Kerner Incinerator Co., The (Garbage burners), 1029 Chestnut St., Milwaukee, Wis. Branches in all principal cities.
Kerr & Co., Inc. (Belt lacing), 116 Liberty St., New York, N. Y.
Kerr Machinery Corp. (Centrifugal pumps), 642 Beaubien St., Detroit, Mich.
Kerr Turbine Co. (Steam turbines), Wellsville, N. Y.
Kerrihard Company, The (Pumps, etc.), Red Oak, Ia.
Keuffel & Esser Co. (Surveyors' instruments), Adams and 3d Sts., Hoboken, N. J.; Chicago; St. Louis; San Francisco; New York and Montreal.
Keuka Industries, Inc. (Belt shifters), Hammondsport, N. Y.
Kewanee Boiler Co. (Boilers, etc.), Kewanee, Ill. Branches in principal cities.
Kewanee Private Utilities Co. (Gas engines, domestic waterworks, etc.), Kewanee, Ill.; 50 Church St., New York; 1213 Marquette Bldg., Chicago.
Key Boiler Equipment Co. (Boiler specialties), 27th and McCasland Ave., East St. Louis, Ill.
Keystone Belting Co. (Leather belting), 213 N. Third St., Philadelphia, Pa.
Keystone Boiler & Foundry Co. (Boilers, tanks, etc.), Landisville, Pa.
Keystone Brass Company, 826 Arch St., Philadelphia, Pa.
Keystone Brass Works (Plumbers' brass specialties), 926 West Main St., Erie, Pa.
Keystone Coupling Co. (Pipe couplings), 103 Market St., Pittsburgh, Pa. (See index to advertisements, pages 7, 8 and 9.)
Keystone Driller Co. (Pumps, drills, etc.), **8th Ave., Beaver Falls, Pa.; 170 Broadway, New York; Monadnock Blk., Chicago; Joplin, Mo.** (See index to advertisement, pages 7, 8 and 9.)
Keystone Emery Mills (Emery powder and cake), 4329 Paul St., Philadelphia, Pa.
Keystone Forging Co. (Truck casters), Northumberland, Pa.
Keystone Grinders & Mfg. Co. (Tool grinders), Imperial Power Bldg., Pittsburgh, Pa.
Keystone Lubricating Co. (Lubricators), 21st & Clearfield Sts., Philadelphia, Pa.
Keystone Machine & Engineering Co., Oil City, Pa.
Keystone Mfg. Co., The (Wrenches and drills), 41-51 Chandler St., Buffalo, N. Y.
Keystone Oil & Mfg. Co. (Oils and greases), 332 So. Michigan Blvd., Chicago, Ill.
Keystone Pottery Co. (Water closets, etc.), New York and Olden Aves., Trenton, N. J.
Keystone Reamer & Tool Co. (Small tools), Millersburg, Pa.; 33 Warren St., New York; 180 N. Market St., Chicago, Ill.
Keystone Sanitary Supply Co. (Wiping cloths), 124 Jefferson St., Greensburg, Pa.
Keystone Steel & Wire Co. (Wire and wire products), Peoria, Ill.
Kidd Drawn Steel Co. (Steel), Aliquippa, Pa.
Kidder Furnace Co., The (Electric furnaces), 1104 5th St., N. E., Canton, O.
Kidder, J. F., Mfg. Co. (Punches, shears, etc.), Burlington, Vt.
Kiddle's Machine Tool Works (Lathes), Kinsman, O.
Kiel Flexible Pipe Joint Co. (Flexible pipe joints), Louisville, Ky.
Kieley & Mueller (Steam specialties), 34 W. 13th St., New York, N. Y.; 223 W. Erie St., Chicago.
Kilborn & Bishop Co., The (Chisels, wrenches, etc.), Chapel and Lloyd Sts., New Haven, Conn.
Kilby Pipe Co., Inc. (Cast iron soil pipe and fittings), Anniston, Ala. (Gulf States Pipe Corp., Anniston, Ala., exclusive sales agents.)
Kimball Brothers (Elevators), 9th St. and 11th Ave., Council Bluffs, Ia.
Kimball, C. M., Co. (Metal polish), 41 Bowdin St., Winthrop, Mass.
Kimble Electric Co. (Fans, blowers, etc.), 648 N. Western Ave., Chicago, Ill.
Kimble Glass Co. (Gage glasses), 402 W. Randolph St., Chicago, Ill.
Kincaid Bros. (Ejectors, etc.), 211 Water St., Pittsburgh, Pa.
Kindt-Collins Co., The (Pattern shop equipment), 1030 St. Clair Ave., N. E., Cleveland, O.
King, A. R., Mfg. Co. (Ratchet drills), Kingston, N. Y.
King-Bate Co., The (Boilers, heaters, grates), 11 E. Elm St., Conshohocken, Pa.
King Bros. (Gasoline engines), East Water & Grape Sts., Syracuse, N. Y.
King Machine Tool Co., The (Machine tools), Clifton Ave. and B. & O. S. W. R. R., Cincinnati, O.
King Mfg. Co. (Wire brushes), Arlington, N. J.
King Pneumatic Tool Co. (Pneumatic tools and accessories), 2717 N. Ashland Ave., Chicago, Ill.
King Sanitary Pipe Cleaner Co., Inc. (Pipe cleaner), Sandy Hook, Conn.
King Union Company, Inc. (Unions), Hillsgrove, R. I.
Kingsbury Mfg. Co. (Drilling machines), Keene, N. H.
Kingsford Foundry & Machine Co. (Pumps and boilers), Oswego, N. Y.

Kinney Mfg. Co. (Pumps and friction clutches), 3529-3541 Washington St., Jamaica Plain Sta., Boston, Mass.; 30 Church St., New York, N. Y.; 1315 Manhattan Bldg., Chicago, Ill.; 619 Underwood Bldg., San Francisco, Cal.; 725 Commercial Trust Bldg., Philadelphia, Pa.; Kansas City; Houston. (See index to advertisement, pages 7, 8 and 9).
Kinsey & Mahler Co. (Valves, cocks, etc.), Adams and Harrison Sts., Peoria, Ill.
Kirchberger, M., & Co., Inc. (Acetylene burners), 1401 37th St., Brooklyn, N. Y.
Kirk-Latty Mfg. Co., The, 1971 W. 85th St., Cleveland, O.
Kirk & Blum Mfg. Co. (Sheet metal products), 2846-2852 Spring Grove Ave., Cincinnati, O.
Kitson Company (Brass fittings), Westmoreland and Stokley, Philadelphia, Pa.
Kitts Mfg. Co. (Steam specialties), 19-21 W. Seneca St., Oswego, N. Y.; Jenkins Arcade, Pittsburgh, Pa.
Kitts Steam Specialties Co. (Steam traps), 56 East 2nd St., Oswego, N. Y.
Klaxon Company (Signal horns), Newark, N. J.; Detroit, Mich.
Kleen Heat Co., Div. of Winslow Boiler & Engineering Co. (Oil burners), 175 No. Michigan Ave., Chicago, Ill.
Klein, Mathias & Son (Linemen's tools), 3200 Belmont Ave., Chicago, Ill.
Klein Mfg. Co. (Paints), Perry Payne Bldg., Cleveland, O.
Klein-Logan Co., The (Picks, tools, hammers and sledges), S. 13th and Breed Sts., Pittsburgh, Pa
Kleinman, Russell F. (Pipe couplings), Morris Bldg., Philadelphia, Pa.
Klemm, E. R. (Stone jacks), 1445-55 W. Austin Ave., Chicago, Ill.
Klemm & Co. (Water filters), 1364 W. Grand Ave., Chicago, Ill.
Klemm & Co. (Guards for electric lamps), 132 No. 5th St., Philadelphia, Pa.
Kline, Lewis T. (Woodworking machinery), Alpena, Mich.
Klingerit, Inc. (Asbestos packings, gage glasses), 16-22 Hudson St., New York, N. Y. (See index to advertisement, pages 7, 8 and 9.)
Klipfel Mfg. Co. (Pressure regulators, thermostats, etc.), 2651-59 W. Harrison St., Chicago, Ill
Klotz Machine Co. (Pumps and machinery), 318 W. Water St., Sandusky, O.
Knapp Fence Co., The (Factory partitions), 1148 East 134th St., Cleveland, O.
Knapp Mfg. & Supply Co. (Engineers' tools, oilers, etc.), 241 Water St., New York, N. Y.
Knauel Tool Works (Calipers and clamps), Rock Island, Ill.
Knickerbocker Co., The (Dust collectors), Jackson, Mich.
Knickerbocker Mfg. Co. (Bath fountain brushes), 2339 W. Van Buren St., Chicago, Ill.
Knight Engineering & Sales Co. (Electric drills), West 19th & 52nd Ave., Cicero, Ill.
Knight, H. W., & Son (Pattern letters and figures), Seneca Falls, N. Y.
Knight, W. B., Machinery Co. (Drilling and milling machines), 3920 W. Pine Blvd., St. Louis, Mo.
Knight Mfg. Co., The (Sawmill and well drilling mach'y), 1510 Market Ave., So., Canton, O.
Knight & Thomas, Inc. (Fire extinguishers), 212 Summer St., Boston, Mass. (See index to advertisement, pages 7, 8 and 9.)
Knoble Filter Co., The (Water filters), 505 No. State St., Chicago, Ill.
Knott, L. E. Apparatus Co. (Drinking fountains, etc.), 79 Ames St., Cambridge, Mass.
Knott Mfg. Co. (Plumbers' woodwork, etc.), Tell City, Ind.
Knowlton Machine Co. (Cold saws), Westbrook, Me.
Knowlton Rubber Co., Geo. W. (Packings), 60 Pearl St., Boston, Mass.
Knox Mfg. Co., Inc. (Couplings, clamps, etc.), 821 Cherry St., Philadelphia, Pa.
Koalsave Vacuum Valve Co. (Vacuum valves), 21 E. 40th St., New York, N. Y.
Koch, Henry (Machinists' tools), Nyack, N. Y.
Koch, Paul W., & Co. (Hole cutters), 19 S. Wells St., Chicago, Ill.
Koehler Mfg. Co. (Miners' lamps), Marlboro, Mass.; 1634 Jefferson Ave., Scranton, Pa.; 530 Fernando St., Pittsburgh, Pa.
Koehring Company (Concrete mixers), 31st and Concordia Sts., Milwaukee.
Kohler Co. (Factory wash sinks), Kohler, Wis. Branches in principal cities.
Kohler, F. E., & Co., Inc. (Shovels and scoops), 1006 Tuscarawas St., E., Canton, O.
Koil-Les Heater Company (Water heaters), Geneva, Ill.
Kokomo Brass Works (Plumbing brass goods), Kokomo, Ind.
Kokomo Sanitary Pottery Co. (Vitreous plumbing ware), Kokomo, Ind.
Kolesch & Co. (Draughtsmen's and engineers' instruments), 138 Fulton St., New York, N. Y.
Kompak Co., The (Water heaters), New Brunswick, N. J.
Konigslow, E., Stamping & Tool Works (Metal stamping, presses and dies, etc.), 3401 Vega Ave., Cleveland, O.
Koppel Industrial Car & Equipment Co. (Mine equipment), Koppel, Pa.; New York, Pittsburgh, Chicago, San Francisco, Detroit, Philadelphia.
Kornau Machine Company, The (Woodworking machinery), Gulow & Vandalia Sts., Cincinnati, O.
Kotten Machine Co. (Pneumatic tools), 57 Academy St., Jersey City, N. J.
Koven, L. O., & Brother (Boilers, tanks, furnaces), 154 Ogden Ave., Jersey City, N. J.; 50 Cliff St., New York.
Kraft, A. C. (Oil pumps), 159 W. Lake St., Chicago, Ill.
Krahn Mfg. Co. (Lubricators), 588 Clinton St., Milwaukee, Wis.
Kramer Bros. Foundry Co., The (Furnace grates), 51 Dell St., Dayton, O.
Kramer, W. J., Oil Co. (Boiler compounds), 214-216 Reed St., Milwaukee, Wis.
Kramig, R. E., & Co. (Pipe and boiler covering), 8th St. and Eggleston Ave., Cincinnati, O.; Dayton, O.; Indianapolis, Ind.
Krasberg Engineering & Mfg. Corp. (Tools and machinery), 451 E. Ohio St., Chicago, Ill.
Krein Chain Co. (Chain), Wapakoneta, O.
Kremer-Cummins Machine Co., The (Belt shifters), 6011 Lexington Ave., Cleveland, O.
Krenz, Oscar, Copper & Brass Works, Inc., The (Brass goods), 626 Bryant St., San Francisco, Cal.
Kretschmer Mfg. Co. (Iron pipe fittings), 9th and Washington Sts., Dubuque, Ia.
Kriebel, H. K. (Vacuum valves), 253 E. Upsal St., Philadelphia, Pa.
Krogh Pump & Machinery Co. (Pumps and ejectors), 159 Beale St., San Francisco, Cal.
Kruger & Blind Co. (Pumps and vises), 513 Master St., Philadelphia, Pa.
Krupp Foundry Co. (Iron plumbing goods), Lansdale, Pa.
Kruse & Slattery Tool & Die Co. (Threading tools), 1492 Haddon Ave., Camden, N. J.
Kuhns Bros. (Iron pipe fittings), 1800 Eaton Ave., Dayton, O.
Kulp Theft Proof Lamp Co. (Electric lamps), 360 No. Michigan Ave., Chicago, Ill. (See index to advertisement, pages 7, 8 and 9.)
Kunkle Valve Co. (Pop safety valves), 121 No. Clinton St., Fort Wayne, Ind.
Kupferle, John C., Foundry Co. (Hydrants and iron fittings), First and Wright Sts., St. Louis, Mo.

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L. B. Brass Co. (Ball cocks), 12 Foster St., Peabody, Mass.
L. & L. Manufacturing Co., Inc. (Wrenches and special tools), High St., cor. 8th Ave., Newark, N. J.
L. & S. Company (Closet tank floats), 12 No. Presbyterian Ave., Atlantic City, N. J.
Labaw, L. R. H., & Co. (Cellar Drainers), Belle Meade, N. J.
LaFrancis, A. (Drill blocks, etc.), 435 14th Ave., Newark, N. J.
La Salle Machine Works (Metalworking machinery), 3017 So. La Salle St., Chicago, Ill.
La Salle Steel Co. (Steel shafting, screw steel, etc.), 844 Rush St., Chicago, Ill.
Laclede-Christy Clay Products Co. (Mechanical stokers, brick, tile, etc.), 1673 Railway Exchange Bldg., St. Louis; 1366 Peoples Gas Bldg., Chicago, Ill.; 901 Oliver Bldg., Pittsburgh, Pa.; 835 Book Bldg., Detroit; 280 Madison Ave., New York.
Lacy Mfg. Co. (Tanks, etc.), Washington Bldg., Los Angeles, Cal.
Ladd Water Tube Boiler Co. (Water tube boilers), First National Bank Bldg., Pittsburgh, Pa.
Ladew, Edw. R., Company, Inc. (Leather belting, etc.), 29 Murray St., New York, N. Y. Branches in all principal cities.
LaFavorite Rubber Co. (Rubber goods), Hawthorne, Paterson, N. J.
Laitner, A., & Sons (Bench brushes), 2000 Brooklyn St., Detroit, Mich.
Lake Erie Bolt & Nut Co. (Bolts, screws and nuts), 915 E. 63d St., Cleveland, O.
Lake Erie Mfg. Co., Inc. (Boiler compound, etc.), 198 Chicago St., Buffalo, N. Y.; Kirby Bldg., Cleveland, O.
Lake Shore Engine Works (Mach'y, etc.), Marquette, Mich.
Lakewood Engineering Co. (Industrial cars), Berea Road and W. 117th St., Cleveland, O. Branches in all principal cities.
Lakewood Fabric Belting & Mfg. Company (Belt fasteners), 1518 West 117th St., Cleveland, O.

Lalance & Grosjean Mfg. Co. (Melting ladles, etc.), 299 Broadway, New York, N. Y.; 19th and Clark St., Chicago.
Lally Light Corp. (Lighting outfits), 1742 Rivard St., Detroit, Mich.
Lalor Fuel Oil System Co. of Maryland, Inc. (Oil burning equipment), 114 E. Lombard St., Baltimore, Md.
Lambert Hoisting Engine Co. (Hoisting engines, etc.), 115 Poinier St., Newark, N. J.; 30 Church St., New York; 415 S. Dearborn St., Chicago.
Lambert Machine & Engineering Co. (Boring machines), 1967 E. 55th St., Cleveland, O.
Lambertville Pottery Co. (Lavatories, etc.), Lambertville, N. J.
Lambeth Rope Corp. (Transmission rope, rope dressing, etc.), Tarklin Hill Road, New Bedford, Mass.
Laminated Shim Co., Inc. (Brass shims), 14th St. and Governor Pl., Long Island City, N. Y.; Detroit.
Lammert & Mann Co. (Pumps, etc.), 215 N. Wood St., Chicago, Ill.
Lamson Co., The (Conveying apparatus), Syracuse, N. Y.
Lamson Cutter Head Co. (Woodworking cutting heads), 30 N. Jefferson St., Chicago, Ill.
Lamson & Sessions Co., The (Bolts, rivets, etc.), 2188 Scranton Road, S. W., Cleveland, O.; 34 N. Clinton St., Chicago; Ford Bldg., Detroit.
Lamy, A., & Son, Inc. (Oil gas burners), 535 Livingston St., Elizabeth, N. J.
Lancaster Iron Works, Inc. (Steel tanks, etc.), Hager and Water Sts., Lancaster, Pa.; 501 Fifth Ave., New York; Wesley Bldg., Philadelphia.
Lancaster Machine & Knife Works (Machine knives), Lancaster, N. Y.
Lancaster Steel Products Corp. (Steel mill products), Lancaster, Pa.
Landers, Frary & Clark (Brass goods), Commercial and Center Sts., New Britain, Conn.; New York, Chicago, San Francisco, Los Angeles.
Landis Machine Co. (Bolt and pipe threading machinery), Waynesboro, Pa.
Landis Machine Co., Victor Plant (Taps, die heads, etc.), Waynesboro, Pa.
Landis Tool Co. (Grinders), Waynesboro, Pa.; 51 Chambers St., New York.
Landon Radiator Co., Inc. (Radiators), North Tonawanda, N. Y.
Lane Bros. Co. (Tackle blocks), Poughkeepsie, N. Y.
Lane Joist Hanger Company (Joist hangers), 3612 O'Donnell St., Baltimore, Md.
Lane Mfg. Co. (Woodworking mach'y), Montpelier, Vt.
Lane, W. T., & Bros. (Coal bags), Poughkeepsie, N. Y.
Lang Chemical Co. (Boiler compound), 2539 Grand River Ave., Detroit, Mich.
Langelier Mfg. Co. (Machines, etc.), Arlington, Providence, R. I.
Langhaar Ball Bearing Co. (Ball bearings), Aurora, Ind.
Lanman, E. B., Co. (Wrought iron washers), East Chicago, Ind.
Lansdale Nipple Co. (Pipe nipples), Lansdale, Pa.
Lansing Co. (Factory trucks, wheelbarrows, etc.), Lansing, Mich.; 233 W. Randolph St., Chicago; Willow and N. American Sts., Philadelphia; 28 Van Dam St., New York; 1413 W. 10th St., Kansas City; 78 Cambridge St., Boston; 311 N. 3rd St., Minneapolis; 338 Brannan St., San Francisco; 319 Woodward Ave., Detroit.
Lansing Motor & Pump Co. (Pumps and gas engines), 324-328 Hosmer St., S., Lansing, Mich.
Lanz, M., Bolt Co. (Bolts), 2907 Carson St., Pittsburgh, Pa.
Lapointe, J. N., Co., The (Broaching machines), New London, Conn.
Lapointe Machine Tool Co., The (Broaching machines), Hudson, Mass.
La Porte Machine & Tool Co., Inc. (Filing machines), La Porte, Ind.
La Porte Mat & Mfg. Co. (Steel mats), La Porte, Ind.
Lappan, James, Mfg. Co., The (Boilers, steel pipe, etc., 20th & Pike Sts., Pittsburgh, Pa.
Larco Wrench & Mfg. Corp. (Wrenches), 7800 Woodlawn Ave., Chicago, Ill.
Larkin & Co. (Oil and gas well packers), Butler, Pa.
Larkin Mfg. Co. (Fire dept. supplies), 5th and Stone Sts., Dayton, O.
Larkin Packer Co. (Oil and gas well packers), 6200 Maple Ave., St. Louis, Mo.
Larner-Johnson Valve & Engineering Co. (Hydraulic valves), Atlantic Bldg., Philadelphia, Pa.
La Salle Tool Co. (Grinders), La Salle, Ill.
Lasure Friction Clutch Co. (Friction clutch pulley), 108-114 5th St., Watertown, Wis.
Latimer, Robert L., & Co. (Elevating, conveying and power transmission appliances), 24-8 N. Front St., Philadelphia, Pa.
Latrobe Tool Co. (Drills and reamers), Latrobe, Pa.; Chicago, Detroit.
Latta-Martin Pump Co. (Pneumatic displacement pumps), Hickory, N. C.
Lattner, P. M., Mfg. Co. (Steam generators, etc.), 516 12th Ave., W., Cedar Rapids, Ia.

Laughlin, Thomas, Co. (Marine supplies), Portland, Me.
Laville Rubber Company (Mechanical rubber goods), 320 W. Illinois St., Chicago, Ill.
Lawler Waterfeed & Damper Co. (Regulators, steam traps, etc.), 453 No. Railroad Ave., Mount Vernon, N. Y.
Lawrence Belting Co., 111 Chambers St., New York, N. Y.
Lawrence Pump & Engine Co. (Pumps), Lawrence, Mass.; New York; New Orleans.
Lawrence Shot & Lead Co. (Lead pipe and bar lead), 28th and A Sts., Omaha, Neb.
Lawrenceville Bronze Co. (Bearings and metals), Bessemer Bldg., Pittsburgh, Pa.
Lawson, F. H., Co., The (Sheet metal products), Evans and Whateley Sts., Cincinnati, O.
Lawson Mfg. Co. (Heaters, burners, etc.), 300 Lexington Ave., Pittsburgh, Pa.
Lawson Mfg. Co., The (Wrenches), 2720-24 East 53rd St., Cleveland, O. (See index to advertisement, pages 7, 8 and 9).
Lawton, C. A., Co., The (Cast iron pulleys), De Pere, Wis.
Lawton, W. M. (Leather belting), 3 Franklin St., Utica, N. Y.
Lay, Joseph Co., The (Brushes and brooms), Portland, Ind.; Mattoon, Ill.
Layne & Bowler Co. (Irrigation pumps), Chelsea Ave., Memphis, Tenn.
Le Blond, R. K. Machine Tool Co., The (Machine tools), cor. Madison & Edwards Rds., Cincinnati, O.
LeCount, W. G., Tool Works (Clamps, mandrels, etc.), South Norwalk, Conn.
Leach Company, The (Contractors' equipment), Oshkosh Wis.
Leach & Gardner Co. (Solder), Attleboro, Mass.
Lead Lined Iron Pipe Co. (Pipe and fittings), Wakefield, Mass.
Leader Brass Foundry & Mfg. Co., The (Plumbing brass goods), 3300 Jennings Road, S. W., Cleveland, O.
Leader Specialty Co., Inc. (Plumbers' price books), 515 East Walnut St., Indianapolis, Ind.
Leadite Co., Inc. (Pipe joint cement), Land Title Bldg., Philadelphia, Pa.
Leahy, John J. Electrical Supplies (High water alarms), 48 Dey St., New York, N. Y.
Leahy Mfg. Co. (Oil burners), 1804 E. 8th St., Los Angeles, Cal.
Leard, Wm., Co. (Machine keys), New Brighton, Pa.
Leather Parts Co. (Leather parts), 1621 Prospect St., Indianapolis, Ind.
Leavitt Machine Co. (Valve reseating machines, etc.), Orange, Mass.
Lebanon Boiler Works (Boilers), 14 So. 15th St., Philadelphia, Pa.
Lebanon Drop Forge Co. (Sprocket chain), Avon, Lebanon Co., Pa.
Lebanon Iron Co. (Iron and steel bars, bolts, screws, etc.), Bankers Trust Bldg., Philadelphia; Fourth National Bank Bldg., Atlanta; 40 Rector St., New York.
Leclaire Cabinet Works (Plumbers' woodwork), Edwardsville, Ill.
Le Count, W. G., Tool Works (Clamps, etc.), South Norwalk, Conn.
Lecourtenay Company (Turbine pumps), 5 Maine St., Newark, N. J.
Leddy's Plumbers' Soil Mfg. Co. (Plumbers' soil), 506 Clinton Ave., Hoboken, N. J.
Leeds & Northrup Co. (Furnace recorder), 4901 Stenton Ave., Philadelphia, Pa.; 1304 Monadnock Block, Chicago, Ill.
Lees-Bradner Co., The (Machine tools), 6210 Carnegie Ave., S.E., Cleveland, O.
Lees Manufacturing Co., The (Cotton cordage), 320 Broadway, New York, N. Y.
Leetonia Tool Co., The (Miners' tools), Leetonia, O.
Leffel, James, & Co., The (Engines and boilers), 426 East St., Springfield, O.
Leffler, Chas., & Co. (Metal working machinery), 71 Clymer St., Brooklyn, N. Y.
Lehman Bros. (Metals), 326-32 Jefferson St., Hoboken, N. J.
Lehmann Machine Co. (Lathes), 3560 Chouteau Ave., St. Louis, Mo.
Lehnert & Co. (Shower baths, closet fittings, etc.), 334 E. 23rd St., New York, N. Y.
Lehon Co., The (Roofing and boiler cement), W. 44th and S. Oakley, Chicago, Ill.
Leibfried, C. H., Mfg. Corp. (Radiator and pipe hangers, etc.), 97 Guernsey St., Brooklyn, N. Y.
Leidecker Tool Co. (Well drilling mach'y and tools), Marietta, O.; Bartlesville, Okla.; Basin, Wyo.; Casper, Wyo.
Leiman Bros. (Sand blast machines, blowers, etc.), 23 Walker St., New York; Newark, N. J.
Leland-Gifford Co. (Grinders and drills), 1025 Southbridge St., Worcester, Mass.; New York; Detroit; Chicago; Rochester.

Lenk Mfg. Co. (Blow torches), 30 Merrimac St., Boston, Mass.
Leo Flush Valve Co. (Watercloset flush valves, etc.), 331 Madison Ave., New York, N. Y.
Leonard Machine Works (Pipe cutting machines), Lansdowne, Pa.
Leonard-Rooke Co. (Shower bath valves), 486 Broad St., Providence, R. I.
Leschen, A., & Sons Rope Co. (Rope), 5909 Kennerly Ave., St. Louis, Mo.; 90 West St., New York; 1649 Wazee St., Denver; San Francisco; Chicago, Ill.
Leskole Valve Sales Co. (Air valves), 207 Walnut Place, Philadelphia, Pa.
Leslie Co., The (Pressure valves), Grant and Valley Brook Aves., Lyndhurst, N. J.
Leslie & Elliott (Power boilers), 784 E. Railway Ave., Paterson, N. J.
Le Valley Vitae Carbon Brush Co. (Brushes), 70-100 E. 45th St., New York, N. Y.
Lewellen Mfg. Co. (Variable speed transmissions), Columbus, Ind.
Lewis & Freeman (Electric paint sprays), 5320 St. Clair Ave., Cleveland, Ohio.
Lewis, G. B., Co. (Box trucks), Watertown, Wis.
Lewis, John T., & Bros. Co. (Solder, etc.), Lafayette Bldg., Philadelphia; 1015-19 E. Fayette St., Baltimore, Md.
Lewis, Samuel (Closet augers, etc.), 73 Barclay, New York, N. Y.
Lewis-Shepard Platform Corp. (Elevating trucks), Watertown, Boston, Mass.
Lewis Steam Specialty & Valve Co. (Valves and regulators), 5145 De Lancy St., Philadelphia, Pa.
Libbey Glass Mfg. Co. (Gauge glasses), Toledo, O.
Libby, R. O., & Co. (Metallic packing), Norwich, Conn.
Liberty Electric Corp'n (Valve motors), Stamford, Conn.
Liberty Iron Pipe & Nipple Works (Pipe and nipples), 62 Greene St., New York, N. Y.
Liberty Mfg. Co. (Boiler tube cleaners), Frick Bldg., Pittsburgh, Pa. Branches in principal cities.
Liberty Screw Co., Inc. (Machine screws and nuts), 379 Shrewsbury St., Worcester, Mass.
Liddell Co. (Steam engines), 1001 N. Church St., Charlotte, N. C.
Lidgerwood Mfg. Co. (Hoisting engines, etc.), 96 Liberty St., New York, N. Y.; Chicago, Detroit, Los Angeles, Pittsburgh, Cleveland, Seattle, Philadelphia.
Lidseen, Gustave, Inc. (Oil cans), 832 S. Central Ave., Chicago, Ill. (See index to advertisement, pages 7, 8 and 9.)
Lightning Mfg. Co. (Belt dressing), Orchard and Torsdale Sts., Philadelphia, Pa.
Lillie, Dexter P., Co. (Waste), Indian Orchard, Mass.
Limbert, Geo. B., & Co. (Cast iron and flanged fittings), 558-70 Fulton St., Chicago, Ill.
Lincoln Light Co. (Farm electric lighting plants), Grafton, Wis.
Lincoln Electric Co. (Welding and cutting apparatus), Coit and Kirby Rds., Cleveland, O.
Lincoln Radiator Corp. (Radiators), 2201 Dwyer Ave., Utica, N. Y.
Lincoln Steel Company (Welding wire, etc.), 2320 West 58th St., Chicago, Ill.
Lindahl, Henry, Machine Co. (Mach'y), 5900 Ogden Ave., Chicago, Ill.
Linde Air Products Co. (Oxygen), 30 E. 42nd St., New York, N. Y.
Lindemann & Hoverson Co., A. J. (Water Heaters, etc.), Cleveland and First Avenues, Milwaukee, Wis.
Lindley-Dunning Mfg. Co. (Electric pumps), 5120 Wakefield St., Germantown, Philadelphia, Pa.
Lindstrom's Machine Works (Steam traps, etc.), South Third St., Allentown, Pa. (See index to advertisement, pages 7, 8 and 9.)
Linear Packing & Rubber Co. (Packings), Marshall and Berks Sts., Philadelphia, Pa.
Link-Belt Company (Conveyors, mach'y, etc.), 300 W. Pershing Road, Chicago, Ill.; Executive offices, 910 S. Michigan Ave., Chicago; 2045 Hunting Park Ave., Philadelphia. Branches in principal cities.
Link-Belt Meese & Gottfried Co. (Elevating and power transmission mach'y), 3150 19th St., San Francisco, Cal.
Lino Paint Co., The (Belt dressing), 16908 Waterloo Road, Cleveland, O.
Linton Machine Co., The (Feed water heater and purifier), 101 Park Ave., New York, N. Y.
Lipman Pump Works (Air compressors, etc.), 2321 11th St., Rockford, Ill.
Lippert, E. T., Saw Co. (Saws), 610 Lincoln Ave., Pittsburgh, Pa.
Liquid Fuel Engineering Co. (Oil burners), 6565 Russell St., Detroit, Mich.
Lissberger, Marks, & Son, Inc. (Lead, tin, bearing metals, etc.), 281 Borden Ave., Long Island City, N. Y.
List, E. J., Manufacturing Co. (Friction clutches, etc.), Havana, Ill.
Litchfield Foundry & Machine Co. (Hoists), Litchfield, Ill.
Littell, F. J., Machine Co. (Power presses), 4125 Ravenswood Ave., Chicago, Ill.
Litterer Bros. Mfg. Co. (Sinks, baths, etc.), 3022 No. Rockwell St., Chicago, Ill.
Little Giant Co. (Power hammers), Mankato, Minn.
Little Giant Mfg. Co. (Radiator hangers), 1927 Nicollet Ave., Minneapolis, Minn.
Little Giant Punch & Shear Co. (Punching and shearing machines), Sparta, Ill.
Little, J. R., Metal Wheel Co. (Metal wheels), 4 Cedar St., Quincy, Ill.
Little, M. S., Manufacturing Co. (Heating specialties), 151 New Park Ave., Hartford, Conn.
Littleford Bros. (Melting furnaces and ladles), 451 E. Pearl St., Cincinnati, O.
Littlejohn, A. J. (Demagnetizers), 601 W. Fayette St., Syracuse, N. Y.
Lloyd Forge Co. (Turnbuckles), Annville, Pa.
Loane Engineering Co. (Marine engines), 208 S. Hanover St., Baltimore, Md.
Lobee Pump & Machinery Co. (Pumps), Dearborn and Parish Sts., Buffalo, N. Y.
Lock, H. & A., Co. (Mach'y guards), 243 44th St., Brooklyn, N. Y.
Locke Regulator Co. (Regulators, valves, etc.), 76 North St., Salem, Mass.; New York; Chicago; San Francisco; Detroit.
Locke Steel Chain Co. (Steel belting), 1085 Connecticut Ave., Bridgeport, Conn.
Locke, Stevens & Co. (Plumbing brass goods), 94 Warrenton St., Boston, Mass.
Lockhart-Hodge Co., Inc. (Mach'y guards), 12 Waverly St., Buffalo, N. Y.
Lockhart, R., Jas. (Pipe vises), 201 So. Millvale Ave., Pittsburgh, Pa.
Lockport Manufacturing Company (Wiping cloths, waste, etc.), Depew, N. Y.
Locomotive Stoker Co. (Mechanical stokers), 30 General Robinson St., N. S., Pittsburgh, Pa.
Lodge & Shipley Machine Tool Co. (Machine tools), 3055 Colerain Ave., Cincinnati, O.
Loeber, Henry G., Company (Water coolers and filters), 151 East 126th St., New York, N. Y.
Loeffelholz Co. (Brass goods), 170 Clinton St., Milwaukee, Wis.
Logansport Machine Co. (Chucks), 527 Market St., Logansport, Ind.
Logansport Radiator Equipment Co. (Radiators), East Erie Ave., Logansport, Ind.
Logemann Bros. Co. (Power presses, etc.), 3130 Burleigh Ave., Milwaukee, Wis.; 362-50 Church St., New York; 343 S. Dearborn St., Chicago; Bessemer Bldg., Pittsburgh.
Loggers Oil Equipment Co. (Fuel oil burners), 52 1st St., Portland, Ore.
Lombard Governor Co., The (Governors, etc.), Ashland, Mass.; Atlantic City; San Francisco; Seattle; Los Angeles; Portland, Ore.
Lombard Iron Works & Supply Co. (Mach'y, castings, etc.), 630 Kolloch St., Augusta, Ga.
Londelius, C. A., & Sons (Contractors' water heaters), 847 W. 63rd St., Chicago, Ill.
Lonergan, J. E., Co. (Steam specialties), 211 Race St., Philadelphia, Pa.
Long, Adam A., Machine Works, (Valve reseating machines), 90 Ave., E. Rochester, N. Y.
Loomis Machine Co. (Well drilling mach'y), Tiffin, O
Loomis-Manning Filter Mfg. Co. (Water filters), 37th and Reed Sts., Philadelphia, Pa.
Loper Fire Alarm Co. (Fire alarms), Stonington, Conn.
Lord, F. T., Polish Co. (Metal polish), 37 Hovey Ave., Cambridge, Mass
Lord, L. L., Co., The (Drill extensions), Meadville, Pa.
Loshbough-Jordan Tool & Machine Co. (Power presses), Elkhart, Ind.
Los Angeles Smelting Co. (Babbitt and solder), 739 No. Main St., Los Angeles, Cal.
Louisville Electric Mfg. Co. (Electric drills, etc.), 3000 Magazine St., Louisville, Ky.
Louisville Sanitary Wipers Co., Inc. (Mach'y wiping cloths), 759 Preston St., Louisville, Ky.
Lourie Manufacturing Co. (Hydraulic presses), Springfield, Ill.
Lovejoy, D., & Son (Machine knives), 1 Cushing St., Lowell, Mass.; 633 Carondelet St., New Orleans.
Lovejoy Tool Works (Boilermakers', machinists' and R.R. tools), 323 W. Ohio St., Chicago, Ill.; (See Index to advertisements, pages 7, 8 and 9.)
Lovejoy Tool Co., Inc. (Metal cutting tools), Springfield, Vt.
Lovekin Pipe Expanding & Flanging Machine Co. (Machines, flanging), 421 Chestnut St., Philadelphia, Pa.; 232 Rialto Bldg., San Francisco.
Lovekin Water Heater Co. (Water heaters), 39 Laurel St., Philadelphia, Pa.
Lovett, A. E., Co. (Soldering furnaces and torches), 18 N. 22nd St., E. Orange, N. J.

Lovsted, C. M., & Co. (Steam whistles), 2212-2216 First Ave., S., Seattle; 20 E. Jackson Blvd., Chicago.
Lowell Wrench Co. (Wrenches), 54 Commercial St., Worcester, Mass.
Lowville Machine Co. (Vises), Lowville, N. Y.
Loyal Brass Co. (Brass goods), 1122 St. Clair Ave., S. E., Cleveland, O.
Lubenow Mfg. Co. (Screw machine feeds), 592 1st Ave., Milwaukee, Wis.
Lubriko Co., The (Compounds), Meadow and Jackson Sts., Philadelphia, Pa.; Seattle, Wash.; San Francisco, Cal.
Lubron Co., The (Packings), Everett, Mass.
Lucas, John, & Co., Inc. (Factory paints), 322 Race St., Philadelphia, Pa.
Lucas Machine Tool Co. (Machine tools), E. 99th St. and N. Y. C. R. R., Cleveland, O.
Lucas-Miner Pump Co. (Pumps), Dayton, O.
Lucey Mfg. Corp. (Oil well supplies), Woolworth Bldg., New York, N. Y.; Houston, Chattanooga, Pittsburgh, Los Angeles, Shreveport, La.
Ludlow Stamping & Fabricated Steel Co. (Pipe repair clamps), 779 North 28th St., Philadelphia, Pa.
Ludlow Valve Mfg. Co. (Valves), Foot of Adams St., Troy, N. Y.; 62 Gold St., New York; 112 Water St., Boston; 633 Rookery, Chicago; 2022 1st Nat'l Bank Bldg., Pittsburgh; R. A. Long Bldg., Kansas City, Mo.
Ludlum Electric Furnace Corp. (Electric furnaces), 33 West 42nd St., New York; 1238 W. Wash. Blvd., Chicago, Ill.
Ludlum Steel Co. (Steel), 33 West 42nd St., New York.; Buffalo, Chicago, Cleveland, Detroit, Philadelphia, Pittsburgh, San Francisco.
Lufkin Foundry & Machine Co. (Saw mill mach'y), Lufkin, Tex.
Lufkin Rule Co., The (Rules and measuring tapes), Hess St., Saginaw, Mich.; 110 Lafayette St., New York.
Luitwieler Pumping Engine Co. (Pumping engines), 123 Ames St., Rochester, N. Y.; 707 N. Main St., Los Angeles, Cal.
Lukens Steel Co. (Boiler braces and plates), Coatesville, Pa.; Philadelphia; New York; Boston; Baltimore; New Orleans. Representatives: A. M. Castle & Co., Chicago, Los Angeles and San Francisco; J. F. Corlett & Co., Cleveland, O.
Lukomski Bros. Co. (Plumbing supplies), 2480 E. Grand Blvd., Detroit, Mich.
Luma Electric Equipment Co. (Soldering tools), Spitzer Bldg., Toledo, O.
Lumen Bearing Co. (Metals and bearings), 197 Lathrop St., Buffalo, N. Y., Chicago, Ill.
Lumsden, E. R. (Radiator tongs), Indiana, Pa.
Lumsden & Van Stone Co. (Pipe joints), 426 1st St., Boston, Mass.
Lungmotor Co. (Pulmotors), 15 Brattle St., Boston, Mass.
Lungwitz, Emil E. (Filter presses), 90 West St., New York, N. Y.; 14 E. Jackson Blvd., Chicago.
Lunkenheimer Co., The (Steam specialties), Cincinnati, O.; 136-138 High St., Boston; 568 W. Wash. Blvd., Chicago; 129-35 Lafayette St., New York; 211 Camp St., New Orleans; 355 Fifth Ave., Pittsburgh; 116 New Montgomery St., San Francisco.
Lupton's, David, Sons Co. (Steel factory equipment), Allegheny Ave. and Tulip St., Philadelphia, Pa.
Luther Grinder Mfg. Co. (Tool grinders), 285 So. Water St., Milwaukee; 320 Market St., San Francisco. (See index to advertisement, pages 7, 8 and 9.)
Luther Mfg. Co., Inc. (Machinery), Olean, N. Y.
Lutter & Gies Co. (Shapers), 258 Lake St., Milwaukee, Wis.
Lutz Co., Inc. (Wrenches, drill holders, etc.), Morris and Bambrey Sts., Philadelphia, Pa.; Camden, N. J.
Lutz, Ferdinand (Flush valves, etc.), 555 W. Broadway, New York, N. Y.
Lutz File Co. (File handles), 806 Broadway, Cincinnati, O.
Lux, L. A., Co., The (Boiler compound), 2283-87 Scranton Road, Cleveland, O.
Luzerne Rubber Co., The (Hard rubber pipe and fittings), Trenton, N. J.; 564 W. Monroe St., Chicago, Ill.
Lyman, Benj. K., & Co. (Roofers' equipment), 2109 W. Lake St., Chicago, Ill.
Lynch-Clarisey Co. (Boiler compounds), 3211 S. Wood St., Chicago, Ill.
Lynchburg Foundry Co. (Iron pipe and fittings), Lynchburg, Va.; 122 South Michigan Ave., Chicago; 342 Madison Ave., New York; 312 Andrus Bldg., Minneapolis.
Lyon, Conklin & Co., Inc. (Metal roofing, etc.), McComas and Race Sts., Baltimore, Md.
Lyon Metallic Mfg. Co. (Metal lockers, boxes, etc.), Aurora, Ill.
Lyons, Edward S. (Belt knives), Woburn, Mass.
Lytton Manufacturing Corporation (Traps, regulators, etc.), Franklin, Va.

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McAlear Mfg. Co., The (Steam appliances), 1901-1907 S. Western Ave., Chicago, Ill.; 200 5th Ave.
McAleenan Corp'n (Boilers), 25th and Railroad Sts., Pittsburgh, Pa.
McAuley Automatic Trap Co., The (Steam traps), 3d St. and Penn Ave., Pittsburgh, Pa.
McBurney Stoker & Equipment Co. (Stokers), 619 Trust Co. of Ga. Bldg., Atlanta, Ga.
McCabe Hanger Mfg. Co., The (Expansion bolts), 425-427 W. 25th St., New York, N. Y.
McCabe, J. J., Lathe & Mach'y Corp. (Metal working mach'y), 149 Broadway, New York, N. Y.
McCaffrey File Co. (Files), Fifth and Berks Sts., Philadelphia, Pa.
McCaffrey Mfg. Co. (Roof flanges, etc.), 738 So. Clark St., Chicago, Ill.
McCain Clothes Dryer Company (Radiator shields), 944-950 E. Maryland St., Indianapolis, Ind.
McCarty, J. C., & Co. (Mitre boxes), 29 Murray St., New York, N. Y.
McCauley Belting Co. (Leather belting), 412-420 Orleans St., Chicago, Ill.
McClave-Brooks Co. (Mechanical stokers, grates, etc.), Poplar and Park Sts., Scranton, Pa.; branches in principal cities.
McCollum Hoist & Mfg. Co. (Electric hoist), Downers Grove, Ill.
McConnell Slate Co. (Plumbing slate), 2441 Pacific Ave., Brooklyn, N. Y.
McCord Radiator Mfg. Co. (Gaskets, etc.), 2587 Grand Blvd., E., Detroit, Mich.; Long Island City, N. Y.; Peoples Gas Bldg., Chicago.
McCormack, E. A. (Pipe straps, etc.), 29 Broadway, New York, N. Y.
McCormick, J. S., Co. (Pattern letters and figures), 25th St. and A. V. R. R., Pittsburgh, Pa.
McCoy Manufacturing Company (Boiler compounds), Garwood, N. J.
McCracken Machine Works (Air Valves), 487 N. 29th St., Portland, Oregon.
McCrosky Tool Corporation (Machine tools), Meadville, Pa.
McCullom, Geo. P. (Pipe hangers), 19 No. 3rd St., Muskegon, Mich.
McCullough-Dalzell Crucible Co. (Crucibles), 36th and A. V. Ry., Pittsburgh, Pa.
McCullough Mfg. Co. (Oil pumps), 2632 Central Ave., Minneapolis, Minn.
(See index to advertisement, pages 7, 8 and 9.)
McDonald, A. Y., Mfg. Co. (Pumps and brass goods), 12th and Penard Sts., Dubuque, Ia.; Omaha, Neb.; Minneapolis, Minn.
McDonnell Odometer Co. (Speed indicators, etc.), 3501-3 S. Kedzie Ave., Chicago, Ill.
McDonnell & Miller (Boiler water feeders), 400 No. Michigan Ave., Chicago, Ill.
McDonough Coal Saving Corp. (Regulators, etc.), 3957 Grand River Ave., Detroit, Mich.; Pittsburgh, Chicago.
McDonough Mfg. Co. (Woodworking mach'y), Eau Claire, Wis.
McEvoy, J. H., & Co. (Drive well points), 600 Milby St., Houston, Tex.
McEwen Mfg. Company (Gas engines), Tulsa, Okla.; Beggs, Okla.; Duncan, Okla.; Slick, Okla.
McGill Mfg. Co. (Lamp guards, etc.), Valparaiso, Ind.; 730 W. Monroe St., Chicago; 16 Hudson St., New York; Los Angeles.
McGookin, D. H. (Bolts, nuts, etc.), 1630 N. Ninth St., Philadelphia, Pa.
McGowan, John H., Co., The (Pumps, etc.), 52-64 Central Ave., Cincinnati, O.
McGraw, R. (Ball cocks), 217 Green St., Syracuse, N. Y.
McGregor Working Barrel Co., Inc. (Working barrels), 106 Elm St., Bradford, Pa.
McGurrin Supply Co. (Grease traps), Michigan Soldiers' Home P. O., Grand Rapids, Mich.
McIlroy Belting Co., The (Belting), Hammond, Ind.
McIntire, F. N., Brass Works (Plumbing brass goods), 221 High St., Boston, Mass.
McIntosh & Seymour Corp. (Steam engines), Auburn, N. Y.
McKaig-Hatch, Inc. (Wrenches and pliers), Ontario and Skillen Sts., Buffalo, N. Y.
McKenna Brass & Mfg. Co., Inc. (Plumbing brass goods), 1st and Ross Sts., Pittsburgh, Pa.
McKenzie Furnace Co. (Stokers and grates), 37 West Van Buren St., Chicago, Ill.
McKiernan-Terry Drill Co. (Air compressors and drills), 15 Park Row, New York, N. Y.
McKim, R. B. Co., Inc. ("Banks" mitre clamp), 118 Pearl St., Boston, Mass.
McKinney-Harrington Co. (Conveying machinery), Marquette St., North Chicago, Ill.
McKinney Mfg. Co. (Door hangers, etc.), Metropolitan and Liverpool Sts., Pittsburgh, Pa.
McKinnon Dash Co. (Hose reels), 252 Amherst St., Buffalo, N. Y.
McKinnon Iron Works Co., The (Valve reseating machines), Ashtabula, O.

McKneat Mfg. Co. (Fuel oil burners), 140 Cedar St., New York.
McKnight, L. G., & Son Co. (Woodworking mach'y), Gardner, Mass.
McLanahan-Stone Machine, Co. (Conveyors and buckets), Hollidaysburg, Pa.
McLanathan, F. W., & Son (Leather belting), 30-33 Water St., Lawrence, Mass.
McLane Mfg. Co. (Plumbers' woodwork), Milford, N. H.
McLaughlin, Geo. G., Mfg. Co. (Gas engines, flue cleaners, pumps), 812 E. 6th St., Boston, Mass.
McLean-Jones Oil & Sup. Co., Inc. (Oils and greases), Locust St., Boston, Mass.
McLean Mfg. Corp. (Leather belting), 30 Sullivan St., New York, N. Y.
McLellan, Wm. L., Co., The (Gaskets, packing, etc.), 325 Fairfield Ave., Bridgeport, Conn.
McLeod Leather & Belting Co. (Leather Belting), 300-302 No. Forbis St., Greensboro, N. C.
McLeod & Henry Co. (Iron and steel cement), 357 First St., Troy, N. Y.
McMahon & Co. (Friction clutches), Water St. cor. Ledge St., Worcester, Mass.
McMillan, James, & Co. (Smokeless furnaces), 114 Clarkson Court, Chicago.
McMillan's, W. H., Sons, (Tackle blocks, etc.), 153 South St., New York, N. Y.; 32 Penn St., Brooklyn, N. Y.
McMorran, Edw. E., & Co. (Fire extinguishers), 126 No. Union St., Chicago, Ill.
McNally, Robt. J. (Water filters), 18 W. Cheltenham St., Philadelphia, Pa.
McNamara, M., Stamp & Stencil Works (Steel stamps), 85 Nassau St., New York, N. Y.
McNeil, James, & Bro. Co. (Steel tanks, etc.), 29th St. & A. V. R. R., Pittsburgh, Pa.
McNiece, Wm. & Son (Band saws) 515 Cherry St., Philadelphia, Pa.
McNutt, W. H., Can Sales Co. (Safety cans), 83 Chambers St., New York.
McShane Bell Foundry Co. (Plumbing brass goods), Harford Ave. and B. & O. Ry., Baltimore, Md.
McVicker, W. B., Co. (Boiler compounds, lubricants, etc.), 295 Douglass St., Brooklyn, N. Y.
McWane Cast Iron Pipe Co. (Cast iron pipe), 3600 11th Ave., No., Birmingham, Ala.; 1007 Central Bldg., Los Angeles.
McWhorter Mfg. Co. (Cotter pins), Riverton, N. J.
Mabbs Hydraulic Packing Co. (Packings), 431 S. Dearborn St., Chicago, Ill.
Macalene Co., The (Case hardening compounds), St. Cloud, Minn.
Macbeth-Evans Glass Co. (Gage glasses, etc.), Union Bank Bldg., Pittsburgh, Pa.; New York; San Francisco; Philadelphia; Boston; Chicago.
MacDonald, Alex E. (Plumbing brass goods), 27 Hollywood St., Worcester, Mass.
Machine Products Co. (Gear machinery), 17900 St. Clair Ave., Cleveland, O.
Machine Shop Equipment Co. (Gas engines, etc.), Grove City, Pa.
Machinery Company of America (Woodworking machinery), Big Rapids, Mich.
Mack Tool Co., Inc. (Wood planes and other tools), East Rochester, N. Y.
Mackay-Fuller Co., The (Bathroom fittings), Meriden, Conn.
Mackenzie, Archibald, & Son (Roof Ventilators), 28 Ash St., Saugus, Mass.
Mackenzie-Walton Co. (Brass tubing), 480 Pawtucket Ave., Pawtucket, R. I.
Mackintosh, Hemphill Co. (Engines, mach'y, etc.), 12th and Etna Sts., Pittsburgh, Pa.
Macleod Co., The (Furnaces, forges, etc.), 2236 Bogen St., Cincinnati, O.
MacWatty Belting Co. (Belting and packing), 7 Beverly St., Providence, R. I.
Macwhyte Co. (Wire rope), Kenosha, Wis.; Chicago, New York, Portland, Pittsburgh, Seattle, 805 American Trust Bank Bldg., Birmingham, Ala.
Madden, R. H, Co., Inc. (Files, etc.), Middletown, N. Y.
Maddock, John, & Sons (Vitreous china, W. C.'s and tanks), Ewing and Perry Sts., Trenton, N. J.
Maddock's, Thos., Sons Co. (Drinking fountains), Trenton, N. J.; Architects' Bldg., New York; 640 McCormick Bldg., Chicago.
Madesco Tackle Block Co. (Tackle blocks), Easton, Pa.
Madewell Manufacturing Co. (Pipe straps, etc.), E. 12th St. & 25th Ave., Oakland, Cal.
Madison Foundry Co. (Sewer inlets, etc.), 935 Addison Rd., N. E., Cleveland, O.
Madison-Kipp Corp. (Lubricators), Madison, Wis.
Madison Mfg. Co. (Boring cutters and bars), Spring and Elton Sts., Muskegon, Mich.
Magee Furnace Co. (Laundry heaters), 38 Union St., Boston, Mass.
Magee Steam Specialty Corp. (Radiator valves), 5 E. 3rd St., New York, N. Y.
Magic Leather Treatment Co. (Belt dressing), 1577 Franklin St., Detroit, Mich.
Magie Bros. (Lubricating oils), 2135-37 Loomis St., Chicago, Ill.
Magirl, P. H., Foundry & Furnace Works (Urinals, etc.), Bloomington, Ill.
Magnetic Mfg. Co. (Magnetic separators), 280 23rd Ave., Milwaukee, Wis.; branches in principal cities.
Magnolia Metal Co. (Bearing metal), 75 West St., New York, N. Y.; Fisher Bldg., Chicago; San Francisco; Bayway, N. J.
Mahoney, Daniel, & Sons (Lubricating oil), 17 Main St., Buffalo, N. Y.
Mahoney Machinery Co. (Sawmill mach'y), Erie, Pa.
Mahr Mfg. Co. (Oil furnaces), 1300 N. E. Quincy St., Minneapolis, Minn.; New York City, Pittsburgh, Chicago.
Main Belting Company (Canvas belting, etc.), 13th & Carpenter Sts., Philadelphia, Pa.
Maire Paint Co. (Paints), 609 N. E. Marshall St., Minneapolis, Minn.
Majestic Electric Appliance Co. (Water heaters, etc.), 590 Folsom St., San Francisco, Cal.
Makutchan Roller Bearing Co. (Roller bearings), Joliet, Ill.
Malin & Co. (Belt lacing), 2514 Vestry Ave., Cleveland, O.
Malleable Iron Fittings Co. (Pipe fittings, spraying machines), Branford, Conn.
Mall Tool Co. (Portable Grinders), 7740 So. Chicago Ave., Chicago, Ill.
Mallinckrodt Chemical Works (Calcium chloride), 3600 N. Second St., St. Louis, Mo.
Malm Machine Co. (Rotary punch press), Dayton, O.
Manco Mfg. Co. (Bolt clippers, etc.), Bradley, Ill.
Manchester, James B. (Copper boilers, etc.), 190 Eddy St., Providence, R. I.
Manhattan Brass Co. (Engineers' oilers), 332 E. 28th St., New York, N. Y.
Manhattan Electrical Supply Co. (Dry batteries), 17 Park Place, New York, N. Y.
Manhattan Machine & Tool Works (Surface grinders), Grand Rapids, Mich.
Manhattan Perforated Metal Co. (Perforated metals), 305 East 45th St., New York, N. Y.
Manhattan Rubber Mfg. Co., The (Belting, hose and packing), Passaic, N. J.; St. Louis, Chicago, New York, New Orleans, Birmingham, Boston, Pittsburgh, Baltimore, El Paso, Minneapolis, Columbus, Detroit, Philadelphia, Portland, Ore.; Salt Lake City, Tulsa, Kansas City, Mo.; Spokane, San Francisco.
Manheim Mfg. & Belting Co. (Belting), Manheim, Pa.
Manistee Iron Works Co. (Pumps), Manistee, Mich.; New York; Philadelphia; Pittsburgh; Cincinnati; Cleveland; Detroit; Chicago; St. Louis; Milwaukee; St. Paul; New Orleans; Dallas; Denver; San Francisco; Seattle.
Manley Mfg. Co. (Garage equipment), York, Pa.
Mann Edge Tool Co. (Axes), Lewistown, Pa.
Mann, James H., Co. (Axes), Lewistown, Pa.
Mannen, John E., Co., The (Gas furnaces, etc.), 2241 St. Clair Ave., Cleveland, O.
Manning Abrasive Co., Inc. (Abrasives), Troy, N. Y.; Boston; Chicago; Cincinnati; Cleveland; Detroit; New York; Philadelphia; St. Louis; San Francisco.
Manning, Maxwell & Moore, Inc. (Power plant specialties), Pershing Square Bldg., New York.
Mansfield Lock Washer Co. (Lock washers), Mansfield, O.; Chicago; San Francisco; Chattanooga; St. Paul.
Mantle & Co. (Irregular shaped vises), 1907 Park Ave., New York, N. Y.
Manufacturers' Belt Hook Co. (Belt fittings), 1321 W. Congress St., Chicago, Ill.
Manufacturers Brush Co. (Factory brushes and brooms), 1950 W. 114th St., Cleveland, O.
Manufacturers Equipment Co., The (Gas burners), Michigan Ave., Dayton, O.
Manufacturers Equipment Co., The (Presses, chucks, taps, etc.), Waller Ave. and Fillmore St., Chicago, Ill.
Manufacturing Equipment Co. (Center points), Anderson, Ind.
Manufacturing Equipment & Engineering Co. (Metal factory equipment), Framingham, Mass.
Manufacturers Oil & Grease Co. (Belt dressing, etc.), 2231 Junction Road, Cleveland, O.
Manville, E. J., Machine Co., The (Power presses and screw machines), 574 E. Main St., Waterbury, Conn.
Manzel Bros. Company (Pumps, lubricators, etc.), 309-19 Babcock St., Buffalo, N. Y.
Maple City Stamping Co. (Oil cans), Peoria, Ill.
Marathon Electric Mfg. Co. (Electric Grinders, etc.), 75 Island Ave., Wausau, Wis.
Marble, W. P., & Co. (Valve wheels), 40 Lancaster St., Boston, Mass.

March Automatic Irrigation Co. (Lawn Sprinklers), Muskegon, Mich.
Marchant, Geo. F., Co. (Punches), 1422 S. Rockwell St., Chicago, Ill.
Marcus Iron Works (Hose fittings), 1902 So. Washington St., Peoria, Ill.
Marcy Tool Works, Inc. (Tools), Putnam, Conn.
Marietta Stone Co. (Grindstones), Marietta, Ohio.
Marietta Valve Cup Corp. (Leather cups), Marietta, Ohio.
Marine Hardware Equipment Co. (Marine hardware), South Portland, Maine.
Marion Forged Products Co., Marion, Ind.
Marine Mfg. & Supply Co. (Marine hardware), 158 South St., New York.
Marion Machine, Foundry & Supply Co. (Boilers, grates, etc.), Marion, Ind.; Scottsdale, Pa.
Marion Steam Shovel Co., The (Steam shovels and dredges), Marion, O.
Marion Tool Works, Inc. (Axes and hatchets), 9017 Miller Ave., Marion, Ind.
Maris Bros. (Traveling cranes and trolleys), 5552 Grays Ave., Philadelphia, Pa.
Mark, Clayton, & Co. (Steel pipe), 111 W. Washington St., Chicago, Ill.
Marks, Dan G. (Mechanical drain pipe cleaner), 4013 Halldale Ave., Los Angeles, Cal.
Markwell Mfg. Co. (Brad sets), 97 Hudson St., New York, N. Y.
Marlboro Wire Goods Co. (Sprinkler guards), Marlboro, Mass.
Marlin-Rockwell Corporation (Bearings and hangers), Jamestown, N. Y.; 4545 Palmer St., Chicago, Ill.
Marquette Mfg. Company, The (Garage specialties), Saint Paul, Minn.
Marrow, J. W., Mfg. Co. (Plumbing supplies), 3037 No. Clark St., Chicago.
Marsh, Jas. P., & Co. (Valves, gauges, etc.), 118-124 S. Clinton St., Chicago, Ill.
Marsh, S. L., Company (Traps), 1614 South Flower St., Los Angeles, Cal.
Marsh Valve Co. (Globe valves), Dunkirk, N. Y.
Marshall Metal Corp. (Solder), 111 W. Jackson Blvd., Chicago, Ill.
Marshall & Meier (Tool holders), 298 Mulberry St., New York, N. Y.
Marshall-Wells Co. (Boilers and radiators), Lake Ave., So. Duluth, Minn.
Marshalltown Mfg. Co. (Power shears, pressure gages, etc.), 810 Nevada St., Marshalltown, Iowa.
Marshalltown Trowel Co. (Trowels), Marshalltown, Ia.
Marston, I. G., & Co. (Washers), 226 Ruggles St., Boston, Mass.
Martell Packings Co., The (Metallic packings), Elyria, O.
Martens Filter Co. (Water filters), Ackley, Iowa.
Martin (Water heaters and plumbing fixtures), 710 Buchanan St., Fort Wayne, Ind.
Martin Grate Co. (Grates), 3422 Normal Ave., Chicago, Ill.
Martin, H. P., & Sons (Portable vise benches and stands), Owensboro, Ky.
Martin, J. E., Tool & Die Co. (Vises), 548 W. State St., Springfield, Ohio.
Martin Machine Co. (Small tools), Turners Falls, Mass.
Martin-Morse Corp. (High pressure pipe fittings), 143 Liberty St., New York, N. Y.
Martindale Electric Co., The (Motor maintenance equipment), 1261 West 4th St., Cleveland, O.
Marvel Mach. & Brass Works (Cocks), 4117 Trowbridge Ave., Cleveland, Ohio.
Marvo Mfg. Co. (Pliers), Indianapolis, Ind.
Maryland Bolt & Nut Co. (Bolts and nuts), Mt. Washington, Baltimore, Md.
Mason, Volney W., & Co., Inc. (Clutches and pulleys), 2 Lafayette St., Providence, R. I.
Mason Regulator Co., The (Regulators and valves), 1190 Adams St., Boston, Mass. 606 Howard St., San Francisco; 135 Dagenias St., Montreal.
Massachusetts Machine Shop, Inc. (Metal washers), 817 Albany St., Boston, Mass.
Massasoit Mfg. Co. (Wicking), Fall River, Mass.
Masseth Packer & Machine Co. (Well drilling mach'y and tools), 121 W. Wayne St., Butler, Pa.
Massey Machine Co. (Engine governors), Watertown, N. Y.
Massillon Foundry & Machine Co., The (Steam hammers), Massillon, O.
Mast, Foos & Co. (Pumps), Main and Isabella Sts., Springfield, O.
Master Electric Co. (Electric motors), 434 E. 1st St., Dayton, O.
Master Grip Mfg. Co. (Pulley covering), Austin, Tex.
Master Heat Regulator Co., 2362 University Ave., St. Paul, Minn.
Master Oil Burner Co. (Oil burners), 8300 South Chicago Ave., Chicago, Ill.
Master Plier Corp. (Pliers), 4118 W. Lake St., Chicago, Ill.
Master Rule Mfg. Co., Inc. (Rules), 815 E. 136th St., New York.
Master Woodworker Mfg. Co., The (Woodworking Machinery), 612 Brush St., Detroit, Mich.
Matchless Metal Polish Co., The (Metal polish), 840 West 49th Pl., Chicago, Ill.
Materne, John P., Mfg. Co. (Pipe and fittings), 18th and Gratiot Sts., St. Louis, Mo.; 51 Maiden Lane, New York.
Mather, Edmund, Co. (Steam specialties), 112 So. Cameron St., Harrisburg, Pa.
Mathes, G., Co. (Wiping cloths), Broadway & Branch Sts., Saint Louis, Mo.
Mathews Gravity Carrier Co. (Elevating and conveying mach'y), Ellwood City, Pa.
Mathis Bros. Co., The (Fans and blowers), 2248 S. Halsted St., Chicago, Ill.
Mattatuck Mfg. Co., The (Safety chain), 215 Fulton St., New York, N. Y.
Matthews Engineering Co. (Electric lighting outfits), Sandusky, O.
Matthews, H. A., Mfg. Co., The (Valve handles), Seymour, Conn.
Matthews, Jas. H., & Co. (Pattern letters and figures), 3942 Forbes St., Pittsburgh, Pa.
Matthews, W. N., Corporation (Painting machines, etc.), 3724 Forest Park Blvd., St. Louis, Mo.
Mattingly Automatic Valve Co. (Safety valve for welding equipment, etc.), 2330 Locust St., St. Louis, Mo.
Mattison Machine Works (Woodworking mach'y), South East End, Rockford, Ill.; 602 Times Bldg., New York; 513 Am. Bank Bldg., Greensboro, N. C.; 1735 Republic Bldg., Chicago, Ill.; 553 Monadnock Bldg., San Francisco.
Maxf Grinding Wheel Corp. (grinding wheels), Chester, Mass.; 15 So. Clinton St., Chicago.
Maxson, F. P. (Coping Saws), 3722 N. Ashland Ave., Chicago, Ill.
Maxtic Belt & Packing Co. (Belt dressing), Wellesley Hills, Mass.
Maxwell Products Co. (Lathes), 7513 Indiana Ave., Cleveland, O.
May Oil Burner Corporation, Winchester & Carey Sts., Baltimore, Md.
Maydole, David, Hammer Co., The (Hammers), Norwich, N. Y.
Mayhew Steel Products, Inc. (Screwdrivers, chisels, etc.), 233 Broadway, New York, N. Y.
Maywood Machine Works, Inc. (Soft face hammers), 511 Madison St., Maywood, Ill.
Meachem Gear Corp. (Gears), Canal St. and West Shore R. R., Syracuse, N. Y.
Mead Gas Heater Co. (Gas radiators), Delawanna, N. J.
Mead-Morrison Mfg. Co. (Gravity conveying apparatus), Prescott and Orleans Sts., Boston, Mass.; Monadnock Bldg., Chicago; 149 Broadway, New York.
Meadville Wrench Co. (Wrenches), Meadville, Pa.
Mears, Kane, Ofeldt, Inc. (Radiators, boilers, etc.), 1903 East Hagert St. Philadelphia, Pa.
Mechanical Devices Co. (Self-lubricating bearings), 140 Fox St., Aurora, Ill.
Mechanical Rubber Co., The (Belting, hose, etc.), 4614 Prospect Ave., Cleveland, Ohio.
Mechanics Tool Co. (Pliers, wrenches), 7th St. and 23rd Ave., Rockford, Ill.
Mecklenburg Iron Works (Pumps and engines), 510 W. Trade St., Charlotte, N. C.
Medart Company, The (Power transmission mach'y), 3500 De Kalb St., St. Louis, Mo.; Cincinnati, Chicago, Philadelphia. (See index to advertisement, pages 7, 8 and 9).
Medart, Fred, Mfg. Co. (Metal lockers), 3535 De Kalb St., St. Louis, Mo.; New York, Chicago.
Medina Foundry Co. (Pipe and fittings), 120 Fuller Ave., Medina, N. Y.
Medina Iron & Brass Co. (Pipe and fittings, etc.), 528 East Ave., Medina, N. Y.
Medina Stamping & Machine Co., Inc. (Hose fittings), Medina, N. Y.
Meek Oven Mfg. Co., Newburyport, Mass.
Meerhoff, Wm. (Closet vault valves), 9 So. 9th St., Richmond, Ind.
Meier-Andres Belting Co. (Leather belting), 128-130 Mulberry St., Newark, N. J.
Meisselbach-Catucci Mfg. Co. (Gear hobbing machines, etc.), 51 Stanton St., Newark, N. J.
Melbye Bros. Co. (Auxiliary boilers), 1208 Webster Ave., Chicago, Ill.
Meldrum-Gabrielson Corp. (Machine tools), 601 W. Fayette St., Syracuse, N. Y.
Mellor Packing Mfg. Co. (Packing), 332 Ocean Ave., Jersey City, N. J.
Memphis Machine Works (Sawmill mach'y), 171 Vance St., Memphis, Tenn.
Menasha Clutch Pulley & Machinery Co. (Clutch pulleys, etc.), Menasha, Wis.
Menasha Wood Split Pulley Co. (Pulleys and factory trucks), Menasha, Wis.

Meneley-Diederich Company, Inc. (Shower Bath Curtains), 1722 E. 7th St., Los Angeles, Calif.
Menge Pump & Machinery Co., Ltd. (Irrigation pumps), 862 Tchoupitoulas St., New Orleans, La.
Mercer Rubber Co. (Packings), Hamilton Square, N. J.
Merchant & Evans Co. (Metal products), 2013-35 Washington Ave., Philadelphia, Pa.; 242 Water St., New York; 347 N. Sheldon St., Chicago; Cleveland; Kansas City; Detroit.
Merco Nordstrom Plug Valve Co. (Plug valves), 121 Second St., San Francisco, Cal.
Mereen-Johnson Machine Co. (Woodworking machinery), 4401 Lyndale Ave., No., Minneapolis, Minn.
Meriam Co., The (Shaft couplings), 8405 Detroit Ave., N. W., Cleveland, O.
Meriden Machine Tool Co., The (Lathes, etc.), 106 Britannia St., Meriden, Conn.
Meriden Press & Drop Co., The (Power presses, etc.), 153 State St., Meriden, Conn.
Merit Oil Equipment Co. (Drilling Machines), Morgan Ave., Cleveland, Ohio.
Merkle Broom Co. (Factory brushes), Paris, Ill.
Merrell Mfg. Co. (Threading and cutting mach'y), 208 Curtis St., Toledo, O.
Merrick Scale Mfg. Co. (Scales), Passaic, N. J.
Merrill Bros. (Power presses, etc.), Arnold St. and L. I. R. R., Maspeth, New York, N. Y.
Merrill, E. C. (Gas burners and heaters), 2915 Smallman St., Pittsburgh, Pa.
Merrill, W. B., & Co. (Metallic packing), 3368 Washington St., Jamaica Plain, Boston, Mass.
Merriman Bros. (Self lubricating bushings), 185 Amory St., Jamaica Plain, Boston, Mass.
Merritt Mfg. Co. (Woodworking mach'y), Michigan and S. Niagara Sts., Lockport, N. Y.
Mershon, Wm. B., & Co., Inc. (Sawmill mach'y), Saginaw, Mich.
Messer Welding Supply Corp. (Oxy-acetylene apparatus), 126 Tenth St., Brooklyn, N. Y.
Messmer Brass Co. (Valves, faucets, etc.), 2700 So. 7th St., Saint Louis, Mo.
Mesta Machine Co., The (Engines and mach'y), Oliver Bldg., Pittsburgh, Pa.
Metal Crafters, The (Bathroom fittings), East Stroudsburg, Pa.
Metal Engineering Co. (Grease cups), Danville, Pa.
Metal Lubricants Co. (Industrial oils), 3744 S. Ashland Ave., Chicago, Ill.
Metal Sales Co., The (Bearing metal), 511 Bergen Ave., Jersey City, N. J.
Metal Saw & Machine Co., Inc. (Metal cutting saws), 40 Napier St., Springfield, Mass.
Metal Stamping Co. (Bolt clippers), 13th and 14th Sts., Boulevard, Long Island City, N. Y.
Metal & Thermit Corp. (Welding metal and alloy steels), 120 Broadway, New York; Chicago, Pittsburgh, South San Francisco, Boston, Toronto.
Metalene Chemical Co., The (Boiler compounds), Union Trust Bldg., Cleveland, O.; 1124 Republic Bldg., Chicago; 386 Belmont Ave., Newark, N. J.
Metallo Gasket Co. (Gaskets), 16 Bethany St., New Brunswick, N. J.
Metalwood Mfg. Co. (Hydraulic fittings and valves), Leib & Wight Sts., Detroit, Mich.
Met-L-Wood Corp. (Casters), 2425 W. 14th St., Chicago.
Metric Metal Works (Gas meters), 10th and Payne Sts., Erie, Pa.
Metric Packing, Div. of the Hewitt Rubber Co., (Sheeting packing), 240 Kensington Ave., Buffalo, N. Y.; 80 E. Jackson Blvd., Chicago, Ill.; Boston, Cleveland, Detroit, New York, Minneapolis, Los Angeles, Philadelphia, Pittsburgh, New Orleans.
Metzgar Co., Inc. (Truck wheels), Grand Rapids, Mich.
Meurer Steel Barrel Co., Inc. (Steel barrels), 25 West 43rd St., New York; branches in principal cities.
Mey Chain Belt Company (Sprocket wheel chains), 82 Washington St., Buffalo, N. Y.
Meyer Belting Co. (Leather belting), 320 W. Division St., Chicago, Ill.
Meyer Co., Herbert J. (Metallic hose), 215 Moselle St., Buffalo, N. Y.
Meyer-Sniffen Co., The (Plumbing fixtures), 11 West 48th St., New York, N. Y.
Michigan Copper & Brass Co. (Copper and brass sheets and tubes), 5851 W. Jefferson Ave., Detroit, Mich.
Michigan Leather Packing Co., Inc. (Packings), 620 St. Antoine St., Detroit, Mich.
Michigan Machine Co. (Lubricating pumps), 2281 W. Fort St., Detroit, Mich.
Michigan Metal Spinning & Mfg. Co. (Copper floats), 2130 E. Woodbridge, Detroit.
Michigan Pipe Co., The (Wood pipe), Bay City, Mich.
Michigan Screw Co. (Machine screws and nuts), Lansing, Mich.
Michigan Smelting & Refining Co. (Metals), 7885 Jos. Campau St., Detroit, Mich.; Cleveland, Chicago, New York.
Michigan Sprocket Chain Co. (Chains, etc.), 7818 W. Jefferson Ave., Detroit, Mich.
Michigan Steel Corp. Mill (Steel mill products), Ecorse, Detroit, Mich.
Michigan Stove Co. (Gas heaters, etc.), 3310 E. Jefferson Ave., Detroit, Mich.
Michigan Tool Co. (Milling cutters), 147 Jos. Campau St., Detroit, Mich.
Michigan Valve & Foundry Co. (Hydrants), 3631 Parkinson Ave., Detroit, Mich.
Michigan Wire Cloth Company (Wire, wire screens, etc.), 2101 Howard St., Detroit, Mich.
Micro Machine Co. (Grinders), Bettendorf, Iowa.
Middlesex Products Co. (Recording instrument paper), 112 Water St., Boston, Mass.
Middletown Mfg. Co. (Water heaters), Middletown, Ohio.
Midland Mfg. Co. (Pumps and brass goods), 67 Jennings Ave., Fort Worth, Texas.
Midland Metal Mfg. Co. (Roof flashings), 1219 Lydia Ave., Kansas City, Mo.
Midwest Air Filters, Inc. (Air filters), Bradford, Pa.
Mid-West Asbestos Products Co. (Pipe coverings, etc.), 4341 Justine St., Union Stock Yards, Chicago, Ill.
Mid-West Broom Mfg. Co. (Brooms), Circleville, O.
Mid-West Chemical Co. (Boiler cleaner), 961 19th St., Milwaukee, Wis.
Midwest Steel & Supply Co. (Overhead shafting equipment), Bradford, Pa.
Milbradt Mfg. Co. (Ladders), 2410 No. 10th St., Saint Louis, Mo.
Milburn, Alexander, Co., The (Welding apparatus), 1420-26 W. Baltimore St., Baltimore, Md.; Boston, Chicago, New York, Pittsburgh, San Francisco, Philadelphia.
Milford Iron Foundry (Drainage fittings), Milford, Mass.
Millar, Chas., & Son Co. (Lead pipe, solder, etc.), 501-521 Main St., Utica, N. Y.; 36 Susquehanna St., Binghamton, N. Y.; 26 Willow St., Springfield, Mass.
Millard Leather Co., Inc. (Leather and belt lacing), South Attleboro, Mass.
Miller, Chas. A., Co. (Plumbers' woodwork and specialties), Sturgis, Mich.
Miller, E. L., Mfg. Co. (Filters, engine stops, etc.), 22 West 3rd St., Kansas City, Mo.
Miller Improved Gas Engine Co., The (Gas engines), Plum and Fair Sts., Springfield, O.
Miller Lock Works (Padlocks), 4530 Tacony Road, Philadelphia, Pa.
Miller Machine Works (Engines, boilers, etc.), Springs, Somerset Co., Pa.
Miller-Peerless Mfg. Co. (Safety cans, fire extinguishers, etc.), 325-329 No. Curtis St., Chicago, Ill.
Miller Rubber Co. of New York (Mallets), So. High St., Akron, O.
Miller Tool & Mfg. Co. (Wrenches), 1731 16th St., Detroit, Mich.
Millers Falls Co. (Saws, drills and tools), Millers Falls, Mass.; 28 Warren St., New York, N. Y.
Millersburg Reamer & Tool Co. (Reamers), Millersburg, Pa.
Mills Company, The (Steel shelving, etc.), Wayside Road on the Nickel Plate R. R., Cleveland, O.
Milton Mfg. Co., The (Nuts and bolts), Milton, Pa.
Milwaukee Air Power Pump Co. (Water supply systems), 8-10 Keefe Ave., Milwaukee, Wis.
Milwaukee Boiler Mfg. Co. (Boilers, grates, etc.), 35th and National Ave., Milwaukee, Wis.
Milwaukee Brass Mfg. Co. (Brass goods), 251 Lapham St., Milwaukee, Wis.
Milwaukee Brush Mfg. Co. (Brushes), 770-790 30th St., Milwaukee, Wis.
Milwaukee Electric Crane & Mfg. Co. (Cranes and hoists), 60th and Greenfield, Milwaukee, Wis.; Chicago, New York, Pittsburgh, Portland.
Milwaukee Electric Tool Co. (Portable electric drills), West 45th and Rogers, Milwaukee, Wis.
Milwaukee Flush Valve Co. (W. C. flush valves), 121 Reservoir Ave., Milwaukee, Wis.
Milwaukee Leather Belting Co. (Leather belting), 352 E. Water St., Milwaukee, Wis.
Milwaukee Lock Washer Co. (Lock washers), 27 Erie St., Milwaukee, Wis.
Milwaukee Mfg. Co. (Water heaters), 1316 Fond du Lac Ave., Milwaukee, Wis.
Milwaukee Optical Mfg. Co. (Goggles), 424 Jackson St., Milwaukee, Wis.
Milwaukee Reliance Boiler Works (Pneumatic tanks), 1102 32d St., Milwaukee, Wis.
Milwaukee Steam Appliance Co. (Steam traps), West Allis, Wis.
Milwaukee Tack Co., (Bearing metal, tacks, nails, etc., 27th Ave. and Wahl St., Milwaukee, Wis.
Milwaukee Tank Works, Inc. (Oil storage tanks, pumps, etc.), Fratney and Becher Sts., Milwaukee, Wis.

Milwaukee Valve Co. (Valves), 139 Burrell St., Milwaukee, Wis.; 50 Vesey St., New York.
Mine Safety Appliances Co. (Safety equipment), Braddock Ave. and Thomas Blvd., Pittsburgh, Pa. Branches in principal cities.
Miner, J. H., Saw Mfg. Co. (Saws), Meridian, Miss.
Mineral Rubber Products Co. (Mechanical rubber goods), Moline, Ill.
Mining Safety Device Co., The (Mining safety devices), Bowerston, O.
Minneapolis-Honeywell Regulator Co. (Thermostats), 2753 4th Ave., S., Minneapolis, Minn.
Minnesota Mining & Mfg. Co. (Sandpaper), 791 Forest Ave., St. Paul, Minn.
Minnesota Radiator Co. (Radiators, etc.), 59th Ave., W., and 700 South St., Duluth, Minn.
Minnich Machine Works (Baling presses), Landisville, Pa.
Misener & Irving Mfg. Co., Inc. (Small tools), 326-328 E. Washington St., Syracuse, N. Y.
Missouri Belting Co. (Leather belting), 1021 So. Grand Blvd., St. Louis, Mo.
Missouri Lamp & Mfg. Co. (Fire extinguishers), 114-118 Elm St., St. Louis, Mo.
Mitchell-Bissell Co. (Porcelain guides), Brunswick & Heil Aves., Trenton, N. J.
Mitchell-Vance Co. (Gas fittings), 503 W. 24th St., New York.
Mitchell, W. K., & Co., Inc. (Pipe fittings), 2940 Ellsworth St., Philadelphia, Pa.
Moak Machine & Supply Co. (Power plant appliances, etc.), Port Huron, Mich.
Moccasin Bushing Co. (Self lubricating bushings), 20th and Chestnut Sts., Chattanooga, Tenn.
Mockbee, C. M., Co. (Wire rope fittings), 816 E. Pearl St., Cincinnati, O.
Modern-Bond Company, (Pipe threading machines, etc.), 819 W. 5th St., Wilmington, Del.
Modern Engineering Co. (Welding apparatus), 3411 Pine Blvd., St. Louis, Mo.
Modern Grinder Mfg. Co. (Tool grinders), 64 Reed St., Milwaukee, Wis.; 34 N. Clinton St., Chicago.
Modern Iron Works (Heating, water and gas supplies), Fifth and Ohio Sts., Quincy, Ill.
Modern Machine Tool Co. (Cutting-off machines), Jackson, Mich.
Modern Mfg. Co., The (Pipe hangers, lag screws, etc.), 4734 Hough Ave., Cleveland, O.
Modern Tool Co. (Threading tools), 4th and State Sts., Erie, Pa.
Modern Utilities Company (Scales and pocket levels), Harrisburg, Penna.
Modine Mfg. Co. (Heaters), Racine, Wis.
Modoc Co., Inc., The (Boiler compounds), Fernwood, Pa.
Moeller, A. E., Co. (Thermometers), 263 Sumpter St., Brooklyn, N. Y.
Moffat Feed Water Heater & Purifier Co. (Heaters, and Purifiers), 716 E. Monument St., Dayton, O.; 549 Washington Blvd., Chicago; 9 N. 8th St., St. Louis.
Moffatt Machinery Mfg. Co. (Electric hoists), W. 3rd St., Charlotte, N. C.
Mohegan Tube Co., The (Steel tubing), 306 Scott Ave., Brooklyn, N. Y.
Mohn Machine Co. (Drill presses), 230 Wood St., Reading, Pa.
Mohr, John & Sons (Tubular boilers), E. 96th St. and Calumet River, Chicago, Ill.
Molby Boiler Co., Inc. (Heating boilers), 41 E. 42nd St., New York, N. Y.
Moline Malleable Iron Co. (Link belt and sprockets), St. Charles, Ill.; 626 Race St., Philadelphia, Penna.
Moline Tool Co. (Machine tools), Moline, Ill.
Mollenberg-Betz Machine Co. (Clutches), 110 Washington St., Buffalo, N. Y.
Moloch Company (Hammers and stokers), Kaukauna, Wis.
Moloney Belting Co. (Leather belting), 1285 Elston Ave., Chicago, Ill.; branches in principal cities.
Moltrup Steel Products Co. (Saws, shafting, etc.), 2nd Ave. and 14th St., Beaver Falls, Pa.
Monarch Cleanser Corp. (Hand cleaner), 12 Meadow St., Utica, N. Y.
Monarch Co., The (Leather belting, etc.), 1270 Ontario St., Cleveland, O.
Monarch Engineering Co., The (Electric Water Systems), 240 E. First St., Dayton, O.
Monarch Engineering & Mfg. Co., The (Crucible furnaces), 1206 American Bldg., Baltimore, Md.
Monarch Industries, Inc. (Lathes and reamers), Elkhart, Ind.
Monarch Machine Tool Co. (Engine lathes), Sidney, O.
Monarch Mfg. Co. (Oils and greases), 11th Ave. and 6th St., Council Bluffs, Ia.; Toledo, O.
Monarch Mfg. Works, Inc. (Spray nozzles), Emery and Westmoreland Sts., Philadelphia, Penna.
Monarch Metal Co. (Bearing metal), 119 S. Lincoln St., Chicago, Ill. (See index to advertisement, pages 7, 8 and 9.)
Monarch Soot Remover Co., Inc. (Blowers, etc.), 261 Franklin St., Boston, Mass.

Monash-Younker Co. (Heating specialties), 553-57 W. Monroe St., Chicago; 121 W. 42d St., New York.
Monitor Bi-Loop Radiator Co. (Radiators, heaters, etc.), Lancaster, Pa.
Monitor Boiler Company (Heating boilers), 1506 Race St., Philadelphia, Pa.
Monongahela Tube Co. (Boiler tubes, well casing, etc.), Ferguson Blk., Pittsburgh, Pa.
Mont, A. W. & Co., Inc. (Cotton waste, etc.), 83 Portland St., Hartford, Conn.
Montgomery Coal Washing & Mfg. Co. (Coal mining machinery), 4400 8th Ave., No., Birmingham, Ala.
Montgomery-Stewart Corp. (Steam packings), 527 Cherry St., Philadelphia, Pa.
Monument Pottery Co., The (Porcelain plumbing ware), 600 Ingham Ave., Trenton, N. J.
Mooers-Wright Co. (Oilers), 225 Fifth Ave., New York.
Moore Bros. Saw, File & Tool Corp. (Saws, files, etc.), Jamestown, N. Y.
Moore Drop Forging Co. (Pipe wrenches), 38 Walter St., Springfield, Mass.; 74 Murray St., New York; 34 N. Clinton St., Chicago.
Moore, F. J. (Roof flanges), 1804 Washington Ave., No., Minneapolis, Minn.
Moore, Franklin, Co., The (Hoists, cranes, etc.), Winsted, Conn.; 34 N. Clinton St., Chicago; Stephen Girard Bldg., Philadelphia; Peoples Bank Bldg., Pittsburgh.
Moore, H. A., Co. (Slotting attachment), Rochester, N. Y.
Moore-Master Mfg. Co., The (Friction clutches), 3445 N. Western Ave., Chicago, Ill.
Moore Oil Refining Co., The (Boiler compounds), York St. and McLean Ave., Cincinnati, O.; Branches in principal cities.
Moore Steam Turbine Corp. (Steam engines), Wellsville, N. Y.; branches in all principal cities.
Moore & Moore (Drills, reamers, etc.), Colonial Trust Bldg., Reading, Pa.
Moore & White Co., The (Power transmission mach'y, etc.), 15th St. and Lehigh Ave., Philadelphia, Pa.
Moran Bolt & Nut Mfg. Co. (Bolts and nuts), First and Florida Sts., St. Louis, Mo.
Moran Flexible Steam Joint Co., Inc. (Flexible joints, etc.), 217 W. Main, Louisville, Ky.; 121 Nassau St., New York.
More-Jones Brass & Metal Co. (Bearing metals, etc.), Kingshighway & Manchester Ave., St. Louis, Mo.; Philadelphia; Seattle.
Morehead Mfg. Co. (Steam traps, air compressors), 4895 Grand River Ave., Detroit, Mich.
Morency-Van Buren Mfg. Co. (Closet fittings), Sturgis, Mich.
Morey Flux & Chemical Co. (Welding Flux), Parkesburg, Pa.
Morgan Brass Mfg. Co. (Plumbing brass goods), 2106 Woodland Ave., Cleveland, O.
Morgan, C. Stanley (Felt coverings), 445 W. Larned St., Detroit, Mich.
Morgan Engineering Co. (Traveling cranes), Alliance, O.; 1216 Oliver Bldg., Pittsburgh; Peoples Gas Bldg., Chicago.
Morgan Envelope Co., Div. of U. S. Envelope Co. (Cabinets for toilet paper), Springfield, Mass.
Morgan Manfg. Co., Inc. (Hose couplings), Keene, N. H.
Morgan-Smith Co. (Water wheels), York, Pa.
Morgan Vise Co. (Vises), 108 N. Jefferson St., Chicago, Ill.
Morley Machinery Corp. (Machine tools), 1139 University Ave., Rochester, N. Y.
Moroney, John J., & Co. (Grates), 2825 W. Harrison St., Chicago, Ill
Morrill, Chas., Inc. (Saw sets and nail pullers), 91 Lafayette St., New York. (See index to advertisements, pages 7, 8 and 9.)
Morris, Herbert, Incorporated (Cranes and hoists), 1-15 Lawrence Pl., Buffalo, N. Y.
Morris Machine Tool Co. (Machinery and tools), Court and Harriet Sts., Cincinnati, O.
Morris Machine Works (Pumps and steam engines), Baldwinsville, N. Y.; 39-41 Cortlandt St., New York; 217 N. Jefferson St., Chicago; Forrest Bldg., Philadelphia; Realty Bldg., Charlotte, N. C.; Penobscott Bldg., Detroit.
Morris Metallic Packing Co. (Metallic packing), Lehigh Ave. and Mutter St., Philadelphia, Pa.
Morris Truck & Wheel Co., Inc. (Truck wheels), 760-90 So. 42nd St., Philadelphia, Pa.
Morris, T. J. (Pipe hangers), 584 State St., Springfield, Mass.
Morris & Co., Inc. (Mill trucks and baskets), Groveville, N. J.
Morrison Bros. (Boilers, tanks, etc.), Elm and 25th Sts., Dubuque, Ia.
Morrow Automatic Valve Co. (Pump valves), Milan, O.
Morse, Andrew J., & Son, Inc. (Hose nozzles), 22 High St., Boston, Mass.

Morse-Boulger Destructor Co. (Garbage burners), 425 Lexington Ave., New York, N. Y.
Morse Chain Co. (Transmission chain), Ithaca, N. Y. Branches in principal cities.
Morse Grate Bar Company (Gauge glass preserver), 86 Weybosset St., Providence, R. I. (See index to advertisement, pages 7, 8 and 9.)
Morse Twist Drill & Machine Co., The (Drills, reamers, etc.), 163 Pleasant St., New Bedford, Mass.
Morton Mfg. Co. (Metal working mach'y), Muskegon Heights, Mich.
Moseley Lathe Co., The (Lathes), Elgin, Ill.
Moss, Henry, & Co., Inc. (Steel stamps), 81 Broad St., New York City; 131 N. 11th St., Philadelphia.
Mossberg Pressed Steel Corporation (Wrenches, etc.), Lamb St., Attleboro, Mass.
Moto-Meter Co., The (Thermometers), 11 Wilbur Ave., Long Island City, N. Y.
Motor Appliance Co. (Sanding machines), Oshkosh, Wis.
Motor Products Corp. (Soldering coppers and specialties), 11801 Mack St., Detroit, Mich.
Motor Starter & Air Pump Co. (Air compressors), 52 Dickerson St., Newark, N. J.
Mott, J. L., Iron Works, The (Drinking fountains, factory sinks, etc.), Trenton, N. J.; branches in all principal cities.
Mott Sand Blast Mfg. Co. (Sand blast machines), 4621 Flournoy St., Chicago, Ill.; 1402 Grand St., Hoboken, N. J.
Mouat Vapor Heating Co., The (Radiator valves), 1246-54 W. Fourth St., Cleveland, O.; 10209 Woodward, Detroit.
Mound Tool Co. (Tools), 1203 So. 7th St., St. Louis, Mo.
Mount Carmel Mfg. Co., The (Brass plumbers' spec.), Mount Carmel, Conn.
Mount Morris Valve Corporation (Valves), Mount Morris, N. Y.
Mount Vernon-Woodberry Mills, Inc. (Cotton Belting), Continental Bldg., Baltimore, Md.
Mountain States Rubber Co. (Leather belting), 1238 Broadway, Denver, Colo.
Muehlmatt, Adolph (Drilling machines), 434 Elm St., Cincinnati, O.
Mueller Boiler Compound Co., 2018 Dupont Ave., No., Minneapolis, Minn.
Mueller Brass Co. (Metals), Port Huron, Mich.
Mueller Co. (Brass goods), Decatur, Ill.; 145 W. 30th St., New York.
Mueller, L. J., Furnace Co. (Heating boilers), 197 Reed St., Milwaukee, Wis.
Mueller Steam Specialty Co., Inc. (Steam specialties), 502 W. 126th St., New York, N. Y.
Mulconroy Company, Inc. (High pressure rubber and all metal hose and hose couplings), 54th and Jefferson Sts., Philadelphia, Pa. Distributors throughout the United States.
Mulcott Belting Co., Inc. (Hair belting), 108 Worth St., New York, N. Y.; 548 W. 120th St., Chicago, Ill.
Muller, Edward, & Son (Overhead washers), 5023 Hudson Blvd., North Bergen, N. J.
Mullins Body Corporation, Stamping Dept. (Sheet metal products), 104 Mill St., Salem, O.
Multibestos Company (Brake linings), Walpole, Mass.; 1430 Michigan Ave., Chicago; 2701 Forest Ave., Kansas City; 908 Broadway, Nashville.
Multiplex Mfg. Co. (Air valves), Berwick, Pa.
Multnomah Iron Works (Steam feeds), 30th and Nicolai Sts., Portland, Ore.
Multnomah Metal Works (Bearing metal), 312 Front St., Portland, Ore.
Mummert-Dixon Co. (Grinders), 215 S. Philadelphia St., Hanover, Pa.
Mundie Mfg. Co., The (Pump jacks), 501 Brunner St., Peru, Ill.
Mundorf Chain Works (Log chain), York, Pa.
Mundy Hoisting Engine Co., J. S. (Hoisting engines), 696 Frelinghuysen Ave., Newark, N. J.
Mundt, Charles, & Sons (Perforated metals), 53 Fairmount Ave., Jersey City, N. J.
Munger, H. H. (Hardware specialties), 112 W. Lake St., Chicago, Ill.
Munning, A. P., & Co. (Polishers' and platers' supplies), Matawan, N. J.; New York, Philadelphia, Chicago, Cleveland, Detroit, Rochester, Springfield, Mass.
Munroe, R., & Sons Mfg. Corp. (Boilers, tanks, etc.), 23d and Smallman Sts., Pittsburgh, Pa.
Munson Mill Machinery Co., Inc. (Water wheels) 405 Broadway, Utica, N. Y.
Murdoch, H., & Co. (Bearing metal), 432 Wood St., Pittsburgh, Pa.
Murdock Mfg. & Supply Co., The (Hydrants and drinking fountains), 426-430 Plum St., Cincinnati, O.
Murdock Pump Co. (Pumps), Indianapolis, Ind.
Murphy Metals Co. (Bearing metals), 435 N. Michigan Ave., Chicago, Ill.
Murphy & Walsh (Steel tanks), Pekin, Ill.
Murray, D. J., Manufacturing Co. (Sawmill machinery), Wausau, Wis.
Murray Iron Works Co., The (Steam engines and boilers), Burlington, Ia.
Murray & Sorensen (Plumbing brass goods), 227 W. 17th St., New York, N. Y.
Murrie & Ott (Turning tools), La Crosse, Wis.
Muskegon Aluminum Foundry Co. (Wastes and overflows), 349 W. Clay Ave., Muskegon, Mich.
Mustee Water Heater Co. (Water heaters, etc.), 3409 Superior Ave., Cleveland, O.
Mutual Machine Co. (Universal joints), 27 Wells St., Hartford, Conn.
Myers Machine Co. (Woodworking machinery), Sheboygan, Wis.
Myers Machine Tool Corp. (Lathes, grinders, etc.), Second and Chestnut Sts., Columbia, Pa.; 90-92 West Broadway, New York.
Myers, F. E., & Bro. Co. (Pumps), Ashland, O.; Harrisburg, Pa.; Milwaukee; Cedar Rapids; St. Louis; Albany.

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Nagel-Chase Mfg. Co., The (Gasoline lighting systems, etc.), 254 E. Erie St., Chicago, Ill.
Nagle Engine & Boiler Works (Engines and boilers), 234 E. 16th St., Erie, Pa.
Naperville Machine Co., Inc. (Presses), Naperville, Ill.
Napier Saw Works, Inc. (Saws), Middletown, N. Y.
Narragansett Belting Co. (Leather belting), 68 W. Exchange St., Providence, R. I.
Narragansett Machine Co. (Chucks, Hand Screws, Clamps, File Handles), Vale St., Providence, R. I.
Nash Engineering Co. (Compressors and pumps), South Norwalk, Conn.
Nash, J. M. (Woodworking machinery), 838 30th St., Milwaukee, Wis.
Nashua Steam Press & Boiler Works (Presses and pumps), Nashua, N. H.
Nason Mfg. Co. (Steam specialties), 71 Fulton St., New York, N. Y.; 32 Davis St., Long Island City. (See index to advertisement, pages 7, 8 and 9.)
Nathan Mfg. Co. (Engine room specialties), 250 Park Ave., New York, N. Y.
National-Acme Co., The (Screws, etc.), East 131st St. and Coit Road, Cleveland, O.
National Airoil Burner Co. (Oil burners), Ninth and Thompson Sts., Philadelphia, Pa.
National Alloys Co. (Copper hammers, etc.), 2120 E. Woodbridge St., Detroit, Mich.
National Asbestos Mfg. Co. (Pipe and boiler covering), 163-193 Henderson St., Jersey City, N. J.
National Automatic Tool Co. (Drilling machines), Richmond, Ind.
National Bath Seat Co., Inc. (Bath seats, etc.), 1047 White St., Far Rockaway, N. Y.
National Blow Pipe & Mfg. Co., Ltd., The (Fans, blow and exhaust piping), 738 Dryades St., New Orleans, La.
National Boiler Protector Co. (Boiler seam protectors), 740 Reibold Bldg., Dayton, O.
National Boiler Specialties Co. (Boiler compounds), Elgin, Ill.
National Bolt & Nut Co. (Nuts and bolts), 62d St. and A. V. R.R., Pittsburgh, Pa.; 50 Church St., New York; 80 E. Jackson Blvd., Chicago; 214 N 6th St., St. Louis.
National Brake & Electric Co. (Air compressor foot Belleview Pl., Milwaukee, Wis.; Atlar Chicago, Denver, Los Angeles, Pittsburgh, Louis, San Francisco, Boston, Columbus, Ho ton, New York, Portland, St. Paul, Mexico C
National Brass Mfg. Co. (Plumbing brass goo 258 State St., Rochester, N. Y.
National Brass Works, Inc. (Showers and drai 2140 East 25th St., Los Angeles, Cal.
National Brush & Broom Co. (Industrial broo Ridgeville, Ind.
National Brush Company (Industrial brus Illinois Ave. Bridge, Aurora, Ill.
National Cabinet Co. (Tool chests), 12 Cincir St., Dayton, O.
National Carbon Co., Inc. (Dry cell batteries) E. 42nd St., New York, N. Y.
National Cast Iron Pipe Co. (Pipe), Birmingh Ala.
National Co., Inc. (Water column illuminators), Brookline St., Cambridge, Mass.
National Clamp Co. (Hose clamps), 16 E. 41st New York, N. Y.
National Copper & Smelting Co. (Tubing), 1895 Co man Rd., Cleveland, O.
National Drawn Steel Co., The (Cold drawn ste Bulkley Bldg., Cleveland, O.
National Dry Kiln Co., The (Dry kilns, boilers, et 1118 E. Maryland St., Indianapolis, Ind.
National Electric Water Heater Corp., 64 East St., New York, N. Y.
National Enameling & Stamping Co., Inc. (P sinks), 200 Fifth Ave., New York, N. Y. Louis, Milwaukee, Baltimore, Chicago, Phil phia, Granite City, Ill.; New Orleans.
National Flue Cleaner Co. (Flue cleaners), Grove N. J.

National Foundry Co. of New York (Soil-pipe, etc.), 10 Sanford St., Brooklyn, N. Y.
National Gas Furnace Co. (Gas furnaces), 9 Codding St., Providence, R. I.
National Gas Governor Co., The (Gas governors), 469 Seventh Ave., New York, N. Y.; branches in principal cities.
National Gauge Co. (Gauges, counters, etc.), 300 Pacific St., Brooklyn, N. Y.
National Gauge & Equipment Co. (Pressure gauges), La Crosse, Wis.; New York, Chicago, Detroit, San Francisco.
National Graphite Lubricator Co. (Lubricator), Scranton Life Bldg., Scranton, Pa.
National Grinding Wheel Co. (Grinding wheels), 2984 Main St., Buffalo, N. Y.
National Handle Co., The (Wood handles), Frankfort, Ind.
National Hoisting Engine Co. (Hoisting engines), Harrison, N. J.
National Iron Co. (Log loaders), 50th Ave., W., and Ramsey St., Duluth, Minn.
National Lead Co. (Lead products), 111 Broadway, New York, N. Y.; branches in principal cities.
National Leather Belting Co. (Leather belting), 423-435 E. 56th St., New York, N. Y.
National Leather Preservative Co. (Belt dressing), 110 W. Cullerton St., Chicago.
National Lock Washer Co. (Lock washers), 40 Herman St., Newark, N. J.
National Machine Products Co. (Screw products), 4850 Bellevue Ave., Detroit, Mich.
National Machine Tool Co. (Key seating millers), 2272 Spring Grove Ave., Cincinnati, O.
National Magnesia Mfg. Co. (Pipe covering), 544 Market St., San Francisco, Cal.
National Malleable & Steel Castings Co. (Malleable castings), 10600 Quincy Ave., S.E., Cleveland, O.
National Marine Lamp Co. (Marine lamps), Forestville, Conn.; 254 Pearl St., New York, N. Y.; 41 Spear St., San Francisco.
National Meter Co. (Water meters), 299 Broadway, New York, N. Y. Branches in principal cities.
National Paper Products Co. (Cabinets for toilet paper), Carthage, N. Y.
National Pipe Bending Co., The (Feed water heaters, etc.), 110 River St., New Haven, Conn.; branches in principal cities.
National Products Co. (Steel tanks, oil and gas burners, etc.), East Liverpool, O.
National Radiator Corporation (Radiators and boilers), Johnstown, Penna.
National Refining Co., The (Lubricating oils), National Bldg., Cleveland, O.
National Regulator Co. (Regulators), 2301 N. Knox Ave., Chicago, Ill.; New York; Los Angeles; Philadelphia.
National Roofing Co. (Prepared roofing), Tonawanda, N. Y.; 6318 Kinsman Road, Cleveland.
National Roll & Foundry Co. (Steel mill machinery), Avonmore, Pa.
National Sanding Machine Co. (Sanding machines), 539 Vedder St., Chicago, Ill.
National Sanitary Co. (Porcelain enameled baths, etc.), Salem, O.
National Scale Co. (Scales and trucks), 9 Montgomery St., Chicopee Falls, Mass.; 306 S. Wabash Ave., Chicago.
National Screw & Mfg. Co., The (Screws, bolts, cotters, etc.), 2440 E. 75th St., Cleveland, O.; 326 W. Madison St., Chicago; 117 Chambers St., New York.
National Scrubbing Machine Co. (Floor cleaning machines), 10 S. La Salle St., Chicago, Ill.
National Separator & Machine Co. (Oil filters and separators), 739 Boylston St., Boston.
ational Smelting & Refining Co. (Babbitt metal), 1842 Illinois St., Detroit, Mich.
ational Standard Co. (Blowers, pumps, etc.), Niles, Mich.
tional Steam Pump Co. (Steam pumps, etc.), Upper Sandusky, O.; 64 E. Lake St., Chicago.
tional Steel Construction Co. (Range boilers), 425 Frontenac St., Seattle, Wash.
ional Steel Tank & Mfg. Co. (Tanks), Bradford, Ill.
onal Stove Co. (Water heaters, etc.), Lorain, O.
nal Supply Co. (Furnaces, etc.), 412 Orleans St., hicago, Ill.
nal Tool Co. (Plumbers' tools), 86 Walker St., ew York.
al Transit Pump & Machine Co. (Gas engines, e fittings), Oil City, Pa.; 30 Church St., New rk; De Long Bldg., Philadelphia; Reliance g., Kansas City, Mo.; Farmers Bank Bldg., sburgh; Park Bldg., Cleveland; Foster Bldg., ver; Mason Bldg., Houston, Texas.
Tube Company (Pipe, boiler tubes, seamless tubing), Frick Bldg., Pittsburgh, Pa. ict sales offices: Atlanta, Boston, Chicago, it, Denver, New Orleans, New York, Philaia, Pittsburgh, Salt Lake City, St. Louis, aul. Pacific Coast representatives: U. S. Steel Products Co., San Francisco, Los Angeles, Portland, Seattle. Export representatives: U. S. Steel Products Co., New York, N. Y.
National Twist Drill & Tool Co. (Twist drills, etc.), Brush and E. Grand Blvd., Detroit, Mich.; Chicago; New York; Philadelphia; Syracuse; Buffalo.
National Umbrella Frame Co., Lock Washer Div. (Lock washers), 30th and Thompson Ave., Philadelphia, Pa.
National Utilities Corp. (Water systems), Belleview Pl. & River, Milwaukee, Wis.
National Valve & Mfg. Co. (Pipe fittings, etc.), 3101 Liberty St., Pittsburgh, Pa.
National Water Lift Co. (Water lifts), 1621 Portage St., Kalamazoo, Mich.
Naugatuck Mfg. Co. (Copper floats, etc.), Naugatuck, Conn.
(See index to advertisement, pages 7, 8 and 9.)
Naylor Bros. (Power transmission mach'y), Peekskill, N. Y.; 95 Liberty St., New York, N. Y.
Naylor Spiral Pipe Co. (Steel pipe), 1230 E. 92d St., Chicago, Ill.
Nazel Engineering & Machine Works (Power hammers), 4041 N. 5th St., Philadelphia, Pa.
N. D. N. Corp. (Hanger Bearings), 170 Summer St., Boston, Mass.
Nedco Machine Co. (Electric Sanders), 18 Brighton Ave., Boston, Mass.
Neely Nut & Bolt Co. (Nuts), 2101 Wharton St., Pittsburgh, Pa.
Neemes Bros., Inc. (Grates), 206 First St., Troy, N. Y.
Neider, F. A., Company, The (Nails), Augusta, Ky.
Neil & Smith Electric Tool Co., The (Electric grinders, etc.), 905 Broadway, Cincinnati, O.
Nielson, Inc. (Machine Tools), Lawton, Mich.
Nelson Automatic Boiler Water Feed Co. (Boiler feed governors), 1117 E. 55th St., Chicago, Ill.
Nelson Brothers Co. (Gas engines, etc.), Morse and Owen Sts., Saginaw, Mich.
Nelson Company, The (Heating specialties), 250 Stuart St., Boston, Mass.
Nelson, The Herman, Corp. (Unit Heaters), Moline, Ill.
Nelson L. R., Mfg. Co. (Lawn and hose sprinklers), 1725 S. Washington St., Peoria, Ill.
Nelson Mfg. & Supply Co. (Steel tanks and pumps), Hutchinson, Kan.
Nelson, N. O., Mfg. Co. (Plumbing goods), 928 Chestnut St., Saint Louis, Mo.
Nelson Rivet Co. (Rivets), Taunton, Mass.
Nelson Tool Co., Inc. (Stamping dies), 781-783 E. 142d St., New York, N. Y.
Neptune Meter Co., The (Water meters), 50 East 42nd St., New York, N. Y.; Chicago, San Francisco, Cincinnati, Los Angeles, Portland.
Nestor Mfg. Co., Inc. (Drill press vises), 38-40 W. 13th St., New York, N. Y.
Neu Metal Products Corp., Specialty Mfg. (Solder), 247 Water St., Binghamton, N. Y.
Neuman-Warnock Co. (Radiator bushings), 111 Front St., Beaver Dam, Wis.
Neumann's Friedrich, Successors, Inc. (Grinders), 35 S. William St., New York City.
Never Split Seat Co. (W. C. seats), Morgan Ave., Evansville, Ind.
Neveroil Bearing Co. (Bearings and bushings), Wakefield, Mass.
New Advance Machinery Co. (Glue room mach'y), Van Wert, O.; Chicago, Detroit, Pittsburgh, Cleveland, San Francisco.
New Albany Machine Mfg. Co. (Grates), New Albany, Ind.
New Bedford Boiler & Machine Co. (Valves), 41 Front St., New Bedford, Mass.
New Bern Manufacturing Co. (Tube cleaners), New Bern, N. C.
New Britain Machine Co. (Mach'y., etc.), 140 Chestnut St., New Britain, Conn.; New York; Cleveland; Detroit; San Francisco.
New Delphos Manufacturing Co. (Oil cans, tanks, etc.), Delphos, O.
New Departure Mfg. Co., The (Ball bearings, etc.), 269 No. Main St., Bristol, Conn.; 3044 W. Grand Blvd., Detroit Mich.; 122 S. Michigan Ave., Chicago.
New Detroit Heater Co. (Water heaters, etc.), 3957 Grand River, Detroit, Mich.
New Doty Mfg. Co. (Punching and shearing machines), Janesville, Wis.
New England Bolt Co., Inc. (Bolts, etc.), Everett, Mass.
New England Buff Co. (Polishing wheels), 493 C St., Boston, Mass.
New England Butt Co. (Braiding and winding machinery), 304 Pearl St., Providence, R. I.
New England Screw Co. (Screws and washers), 40 Farnsworth St., Boston, Mass.
New England Steam Gauge Co. (Steam gauges, etc.), Penn Ave., Niantic, Conn.
New England Tank & Tower Co. (Agitator drives), Everett, Mass.

New England Ventilating & Heating Co. (Fans and blowers), 926 Manton Ave., Providence, R. I.
New Era Optical Co., The (Goggles), 17 No. Wabash Ave., Chicago, Ill.
New Haven Copper Co. (Sheet copper), Seymour, Conn.
New Haven Sand Blast Co., The (Sand blast machines), 6 Church St., New Haven, Conn.
New Haven Screw Co. (Screw machine products), 191 Foster St., New Haven, Conn.
New Holland Machine Co. (Sawing outfits), New Holland, Pa.
New Jersey Asbestos Co. (Packings), 1 Water St., New York, N. Y.
New Jersey Foundry & Machine Co. (Cranes, etc.), 90 West St., New York, N. Y.
New Kensington Sanitary Pottery (Sanitary plumbing ware), New Kensington, Pa.
New London Ship & Engine Co. (Oil engines), Groton, Conn.
Newman Mfg. Co. (Strainers), Third St. and Port Ave., Elizabethport, N. J.
New Metal Products Co. (Range boilers), 59th & Doyle Sts., Emeryville, Cal.
New Milford Foundry & Machine Co. (Heating boilers), New Milford, Conn.
New Orleans Waste Mills (Wiping Cloths), 1508 Tchoupitoulas St., New Orleans, La.
New Process Gear Corp. (Gears and pinions), Syracuse, N. Y.
New Process Metals Corp. (Sparking metals), 7 Mulberry St., Newark, N. J.
New Process Roofing & Supply Co. (Metal roofing, etc.), 802 Cadiz St., Dallas, Tex.
New Process Twist Drill Co. (Drills, etc.), 34 Court St., Taunton, Mass.; 42 Murray St., New York.
"New-Way" Motor Co., The (Gasoline engines), Lansing, Mich.
New York Air Brake Co., The (Air compressors), 165 Broadway, New York, N. Y.; Atlanta; Buffalo; Chicago; Portland; Salt Lake City.
New York Belting & Packing Co. (Belting, hose, packing), **91-93 Chambers St., New York, N. Y.; 821 Arch St., Philadelphia; 124 W. Lake St., Chicago; 519 Mission St., San Francisco; 218 Chestnut St., St. Louis; 65 Pearl St., Boston; 420 1st Ave., Pittsburgh; 313 Felt Bldg., Salt Lake City.**
New York Blower Co., The (Blowers, engines, etc.), 2246 S. Halsted St., Chicago.
New York Brass Foundry Co., The, 405 Broome St., New York, N. Y.
New York Central Iron Works Co. (Tanks, boilers, etc.), Hagerstown, Md.
New York Continental Jewell Filtration Co. (Water **filters), Nutley, N. J.; New York; Chicago; Montreal.**
New York Cordage Co., The (Rope, oakum, etc.), 162 South St., New York, N. Y.
New York Gas Tubing Co. (Gas tubing), 806 Greenwich St., New York, N. Y.
New York Leather Belting Co. (Belting), 33 Warren St., New York.
New York Lubricating Oil Co. (Oils and Lubricating greases), 116 Broad St., New York, N. Y.; Boston; Philadelphia; Portland, Ore.; Los Angeles; Omaha; Detroit; Chicago; San Francisco; Seattle; Spokane.
New York Radiator Co. (Radiators), Turner St., Utica, N. Y.
New York Rubber Corporation (Belting and mechanical rubber goods), Beacon, N. Y.
New York Sewage Disposal Co. (Sewer flushers), Grand Central Terminal, New York, N. Y.
New York Slate Works (Plumbing slate), 255 E. 138th St., New York City.
New York Standard Ash Can Mfg. Co. (Ash and garbage cans), 99 Kent Ave., Brooklyn, N. Y.
New York & New Jersey Lubricant Co. (Lubricants), **292 Madison Ave., New York, N. Y.; Atlanta; Charlotte, N. C.; Greenville, S. C.; New Orleans.**
Newark Asbestos Products Co. (Pipe coverings), Newark, N. J.
Newark Brass Works (Plumbers' brass goods), 51 Bruen St., Newark, N. J.
Newark Brush & Scraper Co. (Brushes and scrapers), 264-266 Fabyan Pl., Newark, N. J. (See index to advertisement, pages, 7, 8 and 9.)
Newark Fire Proof Sash & Door Co. (Laundry tray covers), 138 Avon Ave., Newark, N. J.
Newark Gear Cutting Machine Co. (Gear cutting machinery), 69 Prospect St., Newark, N. J.
Newark Oil Burning Devices Co. (Oil burners), 389 Plane St., Newark, N. J.
Newark Wire Cloth Co. (Wire cloth), 351 Verona Ave., Newark, N. J.
Newbury Mfg. Co. (Pipe fittings and specialties), Monroe, N. Y.
Newbury, Jay H., & Son (Pipe fittings and special ties), Spring St., Goshen, N. Y.
Newell Manufacturing Co. (Water heaters), Irwin, Pa.
Newhall Chain Forge & Iron Co. (Welded chain), 90 West St., New York, N. Y.; 17 N. 6th St., Philadelphia; 156 Second St., San Francisco.
Newman Machine Co. (Woodworking mach'y), Greensboro, N. C.
Newman Mfg. Co. (Lathe attachments), 416 Elm St., Cincinnati, O.; 68 W. Washington St., Chicago, Ill.
Newman Mfg. Co. (Foot valves), 3d St., Elizabeth, N. J.
Newport Boiler Co. (Heating boilers, etc.), 529 So Franklin St., Chicago, Ill.
Newport Rolling Mill Co. (Iron and steel sheets), 9th & Lowell Sts., Newport, Ky.
Newton Machine Tool Works, Inc. (Metal working mach'y), 23rd and Vine Sts., Philadelphia, Pa.
Newton Steel Co., The (Steel mill products), Stambaugh Bldg., Youngstown, O.
Ney, J. M., Co., The (Lathe and drill chucks), 71 Elm St., Hartford, Conn.
Niagara Falls Gasket & Packing Co. (Packings), 829 E. 15th St., Brooklyn, N. Y.
Niagara Hydraulic Engine Co. (Hydraulic engines), Chester, Pa.
Niagara Machine & Tool Works (Sheet metal mach'y), 683 Northland Ave., Buffalo, N. Y.
Niagara Metal Stamping Corp. (Tool checks), **235-47 Tenth St., Niagara Falls, N. Y.**
Niagara Motors Corp. (Gasoline Motors), Dunkirk, N. Y.
Nice Ball Bearing Co. (Ball bearings), 30th St. and Nicetown Lane, Philadelphia, Pa.
Nice, Eugene E., Co. (Paints), 268-274 S. 2d St., Philadelphia, Pa.
Nicetown Plate Washer Co., Inc. (Washers), 1824 **Juniata St., Philadelphia, Pa.**
Nichol, Thos. J., Co., The (Pipe fittings and specialties), Pearl and Ludlow Sts., Cincinnati, O.
Nicholls Mfg. Co. (Mitre boxes), Ottumwa, Ia.
Nicholls, Wm. H., Co., Inc. (Molding machines), 2 College Place, Brooklyn, N. Y.
Nichols, Fred Y. (Pump valves), 2909 So. Michigan Blvd., Chicago, Ill.
Nichols Power Co., Inc. (Gas and oil engines, etc.), Stamford, Conn.
Nicholson, W. H., & Co. (Engine room specialties), 12 Oregon St., Wilkesbarre, Pa.
Nicholson File Co. (Files), 23 Acorn St., Providence, R. I.
Niedner's Chas., Sons Co. (Fire hose), Malden, Mass.
Nietzsche & Co. (Pneumatic presses), Providence, R. I.
Niles-Bement-Pond Co. (Mach'y), 111 Broadway, New York, N. Y.; Oliver Bldg., Boston; 21st and Callowhill Sts., Philadelphia; Frick Bldg., Pittsburgh; 573 Washington Blvd., Chicago; 516 N. 3d St., St. Louis; Brown-Marx Bldg., Birmingham.
Niles Machine Works (Pumps, etc.), Lebanon, N. H.
Niles Steel Tank Co. (Tanks), Niles, Mich.
Nilson, A. H., Machine Co., The (Machin'y), 1525 Railroad Ave., Bridgeport, Conn.
Nitrose Co., The (Paint), 1000 Peoria Life Bldg., Peoria, Ill.
Nixon Mining Drill Co. (Mining drills), 202 W. 1st St., Chattanooga, Tenn.
No-Rad Rust Corp. (Rust and scale preventive), 415 No. Water St., Lancaster, Pa.
Noble & Westbrook Mfg. Co., The (Marking machines), 19 Asylum St., Hartford, Conn.
Noera Mfg. Co. (Oilers), 236 Grand St., Waterbury, **Conn.**
Nolan & Blen (Automobile washers), 11 Ridgeway Lane, Boston, Mass.
Nolu Oilless Bearing Co. (Shaft bearing), 6 E. Johnson St., Germantown, Philadelphia, Pa.
Non-Pareil Die Co. (Threading dies), Copewood St. below Haddon Ave., Camden, N. J.
Nordberg Mfg. Co. (Steam engines), Oklahoma Ave. and Chicago Road, Milwaukee, Wis.
Nordyke & Marmon, Inc. (Mach'y and power transmission specialties), Kentucky Ave. & Morris St., Indianapolis, Ind.
Norma-Hoffman Bearings Corp. (Ball and roller bearings), Stamford, Conn.
Norris Brothers, Inc. (Oil well supplies), Robinson, Ill.
Norris, W. C. (Oil well supplies), Frisco Ry. and N. Frisco Ave., Tulsa, Okla.
North American Copper Co. (Copper, etc.), 52 Vanderbilt Ave., New York, N. Y.
North American Handle Co. (Handles), 174 Portland St., Boston, Mass.
North American Mfg. Co., The (Blow torches), 8918 Frederick Ave., Cleveland, Ohio.
North American Smelting Co. (Lead pipe, etc.), 9th & Thompson Sts., Philadelphia, Pa.
North Bros. Mfg. Co. (Small tools), American St. and Lehigh Ave., Philadelphia, Pa.
North Side Tool Co., The (Amplifying gages), 17 Maryland Ave., Dayton, Ohio.
North Star Chemical Works, Inc. (Belt dressing), 13 Railroad St., Lawrence, Mass.

North Star Foundry Co. (Metals and plumbers' specialties), 32d Ave. and 27th St., Minneapolis, Minn.
Northern Blower Co. (Blowers), W. 65th St. & Barberton Ave., Cleveland, O.
Northern Engineering Works (Hoists, cranes, etc.), 210 Chene St., Detroit, Mich.
Northern Equipment Co. (Regulating devices), 114 Grove Drive, Erie, Penna.
Northern Indiana Brass Co. (Ball cocks and flush valves), Elkhart, Ind.
Northern Metallic Packing Co. (Locomotive specialties), 540-542 Rice St., St. Paul, Minn.
Northern Pump Company (Fire extinguishers), 920 18th Ave., N.E., Minneapolis, Minn.
Northern Tool Co., Inc., the (Water gauges, etc.), 806 Union St., Utica, N. Y.
Northfield Foundry & Machine Co. (Woodworking machinery), Northfield, Minn.
Northwest Lead Co. (Lead pipe, etc.), 1744 4th Ave., So. Seattle, Wash.
Northwestern Barb Wire Co., Inc. (Wire and wire products), Sterling, Ill.
Northwestern Blau-Gas Company (Liquid gas), Hampden Ave. & Charles St., N. E., St. Paul, Minn.
Northwestern Mfg. Co. (Motors and generators), 480 Clinton St., Milwaukee, Wis.
Northwestern Motor Co. (Railway section cars), 759 Spring St., Eau Claire, Wis.
Northwestern Stove Repair Co. (Laundry heaters, etc.), 662 W. Roosevelt Road, Chicago, Ill.
Nortmann-Duffke Co. (Perforated metals), 1140 27th Ave., Milwaukee, Wis.
Norton, A. O., Inc. (Jacks), 440 Brookline Ave., Boston 17, Mass.
Norton Co. (Grinding wheels), Worcester, Mass.; 11 N. Jefferson St., Chicago; 324 Bulletin Bldg., Philadelphia; 233 W. Congress St., Detroit; 53 Park Place, New York; 442 Engineers Bldg., Cleveland; 49 Pearl St., Hartford; 608 Empire Bldg., Pittsburgh.
Norwalk Drilling Tool Co. (Oil well supplies), Norwalk, O.
Norwalk Iron Works Co., The (Air compressors), South Norwalk, Conn.
Norwood Engineering Co. (Fire hydrants, paper mill mach'y, etc.), Florence, Mass.
Nott, W. S., Company (Leather belting), Second Ave. N. and Third Sts., Minneapolis, Minn.; 37 S. Clinton St., Chicago, Ill.; 40 1st St., Portland; Spokane.
Novelty Mfg. Co., The (Lawn sprinklers, etc.), 125 Maple St., Waterbury, Conn.
Novelty Steam Boiler Works Co. (Tanks), Clare & Kloman Sts., Westport, Baltimore, Md.
Novelty Turning Co. (Wooden handles), 34 Main, Norway, Me.
Novo Engine Co. (Gas engines), 702 Porter St., Lansing, Mich.; 800 Old Colony Bldg., Chicago, Ill.; 1617 Woolworth Bldg., New York, N. Y.
Noyes, B. B., Co. (Drills, etc.), Greenfield, Mass.
Nu Idea Stand Co. (Range boiler stands, etc.), Kokomo, Ind.
Nubian Paint & Varnish Co., The (Radiator enamels, etc.), 1856 Leclaire Ave., Chicago, Ill.
Nugent, Thos., Sons, Inc. (Heating and ventilating appliances), 223 E. 80th St., New York, N. Y.
Nugent, Wm. W., & Co. (Oilers), 410 N. Hermitage Ave., Chicago, Ill.
Nuhring, Chas., & Bros. (Fire extinguisher, etc.), 1212 Walnut St., Cincinnati, O.
Nunn Brass Works (Oil cups, etc.), 17 Wentworth St., Rochester, N. Y.
Nurre Mirror Plate Co., The (Bathroom furnishings), Bloomington, Ind.
Nusbaum, F. A. (Pipe Clamps, oil filters, etc.), 125 Williams St., Lockland, O.
Nustone Products Corp. (Laundry tubs), 405 Lexington Ave., New York, N. Y.
Nute, McGehee, Geary Co., Inc. (Grates and flue cleaners), Chambersburg, Pa.
Nuttall, R. D., Co. (Gears), Candless St. and Harrison Ave., Pittsburgh, Pa.; Chicago; Philadelphia.
Nutting Truck Co. (Factory trucks and elevators), Faribault, Minn.
Nye Steam Pump & Mach'y Co. (Steam pumps), 701 North Western Ave., Chicago, Ill.
Nye Tool & Machine Works (Pipe threading mach'y), 4120 Fullerton Ave., Chicago, Ill.; 500 W. 114th St., New York.

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O. E. Specialty Mfg. Co. (Vacuum valves), 8-10 Keefe Ave., Milwaukee, Wis.
O. K. Clutch & Machinery Co. (Friction clutches, etc.), Columbia, Pa.
O. K. Tool Co., Inc., The (Tool holders, etc.), Shelton, Conn.
O. & S. Bearing Co. (Bearings), 315 S. Artillery Ave., Detroit, Mich.
Oakland Foundry Co., (Laundry stoves), Belleville, Ill.
Oakley Chemical Co. (Compounds), 24 Thames St., New York, N. Y.
Ober Mfg. Co., The (Woodworking mach'y), Chagrin Falls, O.
Oberdorfer, M. L., Brass Co. (Pumps), Thompson Rd., Syracuse, N. Y.
Oberle, J. F. (Pipe rests), 238 E. 42d St., New York.
Oberlin Mfg. Co., The (Drill chucks), Oberlin, O.
Obermayer, S., Co., The (Foundry supplies), 647 Evans St., Cincinnati, O.; Chicago; Pittsburgh.
Oberndorf Mfg. Co. (Plumbing brass goods), 7509 Thomas Blvd., Pittsburgh, Pa.
O'Brien, John, Boiler Works Co. (Water tube boilers, etc.), 1601 No. 11th St., St. Louis, Mo.
Odell Pump Corp'n (Boiler feeders), 154 Spring St., New York, N. Y.
Odin Stove Mfg. Co., (Gas heaters, etc.), 314 W. 12th St., Erie, Pa.
Oesterlein Machine Co., The (Grinders, etc.), 3301 Colerain Ave., Cincinnati, O.
Ogden, J. Edward, Co. (Fire doors), 147-149 Cedar St., New York.
O'Herron & Co. (Ventilating boxes), 29 No. 4th St., Terre Haute, Ind.
Ohio Brass Co. (Valves, etc.), Mansfield, O.; 50 Church St., New York; 343 S. Dearborn St., Chicago.
Ohio Brass & Copper Co., The (Copper), 222 Post Sq., Cincinnati, O.
Ohio Buff & Mfg. Co., The (Buffing wheels, etc.), 1924-26 W. 8th St., Cincinnati, O.
Ohio Chemical & Mfg. Co. (Carbide), 1177 Marquette St., Cleveland, O.
Ohio-Dayton Saw Gauge Co. (P. O. Box 34), Dayton, O.
Ohio Electric & Controller Co. (Lifting magnets), 5906 Maurice Ave., Cleveland, Ohio.
Ohio Grease Co., The (Lubricators), 505 W. Spring St., Loudonville, O.; Philadelphia; Pittsburgh; Richmond; Cincinnati; Chicago; St. Louis; Memphis; New Orleans; Kansas City; Portland; Seattle; Atlanta; Shreveport.
Ohio Heater Co., The (Gas water heaters, etc.), 391 Dennison Ave., Columbus, O.
Ohio Injector Co., The (Engine room specialties), Wadsworth, O.; 5940 Grand Central Terminal, New York; 1437 Monadnock Blk., Chicago. (See index to advertisement, pages 7, 8 and 9.)
Ohio Knife Co. (Machine knives), C. H. & D. R. R. and Dreman Ave., Cincinnati, O.; New Orleans, Seattle.
Ohio Locomotive Crane Co., The (Cranes), Bucyrus, O.
Ohio Machine & Boiler Co. (Boilers and tanks), 1501 University St., Cleveland, O.
Ohio Machine Tool Co. (Metal working mach'y), Kenton, O.
Ohio Mfg. Co., The (Lathe pans, etc.), Painesville, O.
Ohio Metal Co. (Babbitt metal, etc.), 1133 N. 4th St., Columbus, O.
Ohio Nut & Bolt Co. (Bolts & Nuts), Berea, O.
Ohio Quarries Co., The (Grindstones), Union Trust Bldg., Cleveland, O.
Ohio Rubber & Textile Co. (Rubber belting), 723 St. Clair Ave., Cleveland, O.
Ohio Sanitary Wipers Co. (Mach'y wipers), 2251 Smead Ave., Toledo, O.
Ohio Seamless Tube Co., The (Steel tubing), Shelby, O.; 100 E. 45th St., New York; 1017 Engineers Bldg., Cleveland; 122 S. Michigan Ave., Chicago; 1217 Dime Bank Bldg., Detroit.
Ohio Valley Pulley Works, Inc., The (Pulleys), Maysville, Ky.
Ohl, Geo. A., & Co. (Sheet metal mach'y), 159 Oraton St., Newark, N. J.
Ohlen-Bishop Co., The (Saws), Buttles Ave., Columbus, Ohio; Lawrenceburg, Ind.; Atlanta; Portland; St. Louis; Chicago.
Oil City Boiler Works (Tanks and boilers), Oil City, Pa.; branches in principal cities.
Oil Conservation Engineering Company (Fire extinguishers), 877 Addison Road, Cleveland, O.
Oilgear Co. (Pumps, etc.), 663 Park St., Milwaukee, Wis.
Oil Jack Co., The, (Lifting jacks), 15 Park Row, New York, N. Y.
Oil & Waste Saving Machine Co., The (Oil and waste separators), 1509 Real Estate Trust Bldg., Philadelphia, Pa.
Oil Well Supply Co. (Mach'y, tools and fittings), 215 Water St., Pittsburgh, Pa.
Okey Mfg. Co. (Gas engines), Columbus, O.
Oklahoma Iron Works (Well drilling mach'y and tools), Tulsa, Okla.
Oklahoma Producing & Refining Corporation of America (Lubrication oils), Tulsa, Okla.; Muskogee Refining Div., Muskogee, Okla.
Okonite Co., The (Insulating tape), Passaic, N. J.
O'Leary, Arthur J., & Son Co. (Tools and forgings), 5757 W. 65th St., Chicago, Ill.
Oleum Products Co. (Belt dressing and metal polish), 1129-31 Capouse Ave., Scranton, Pa.
Olin Gas Engine Co., Inc. (Gas engines), 10 Lock St., Buffalo, N. Y.

Oliver Instrument Co., The (Metal sawing machines), Adrian, Mich.
Oliver Iron & Steel Corp., S. 10th and Muriel Sts., Pittsburgh, Pa.; 50 Church St., New York; Monadnock Bldg., San Francisco.
Oliver Oil Burner Corp. (Oil Burners), 210 Chestnut St., St. Louis, Mo.
Oliver, W. W., Mfg. Co., The (Lathes, drills, etc.), 1483 Niagara St., Buffalo, N. Y.
Oliver & Howland Co. (Water heaters and steam traps), 240 Main St., Springfield, Mass.
Olmstead, A. E., & Sons (Steam and gas engines), Pulaski, N. Y.
Olmstead-Thomson Mfg. Co., The (Plumbers' wood work), New Britain, Conn.
Olmsted-Flint Corp. (Leather belting), 624 Main St., Cambridge, Mass.; New York.
Olmsted, L. H., Mfg. Co. (Drilling machine and tools), 2588 3rd Ave., New York.
Olmsted, W. I. (Belting), 95 Commercial St., Boston, Mass.
Olsen, Tinius, Testing Machine Co. (Testing machines), 500 N. 12th St., Philadelphia, Pa.
Olson, Samuel, & Company (Belt conveyors), 2426 Bloomingdale Ave., Chicago, Ill.
Olyphant Foundry Co. (Brackets, grates, etc.), Olyphant, Pa.
O'Malley-Beare Valve Co. (Valves), 255 E. 95th St., Chicago, Ill.; 336 Olive Bldg., Pittsburgh, Pa.; 56 Stewart St., San Francisco; New York.
O'Meara Belting Co. (Leather belting), 716 No. 28th Ave., Omaha, Neb.
O'Malley Mfg. Co. (Plumbers' brass goods), Scranton, Pa.
Onan, D. W., & Sons (Saw tables), 403 Royalston Ave., Minneapolis, Minn.
Oneida Motor Truck Co. (Electric trucks), Green Bay, Wis.
Oneida Wood Pulley Co., Inc. (Wood split pulleys), Oneida, N. Y.
O'Neill Bros., Inc. (Waste), Howard and Oxford Sts., Philadelphia, Pa.
Onondaga Steel Co. (Tool steel), James St., & Thompson Rd., Syracuse, N. Y.
Onward Manufacturing Co. (Air moisteners, etc.), Menasha, Wis.
Orangeville Mfg. Co. (Trucks and barrows), Orangeville, Pa.
O'Reilly, M. J. (Gas burners), 364 Maryland St., Buffalo, N. Y.
Oriental Emery Co. (Emery), 219 Water St., New Haven, Conn.
Orr & Sembower, Inc. (Hoisting engines and boilers), Reading, Pa.; 208 N. Clinton St., Chicago.
Orton Machine Co. (Woodworking mach'y.), 325 Fremont St., San Francisco, Cal.
Orton Crane & Shovel Co. (Locomotive cranes), 610 S. Dearborn St., Chicago, Ill.
Orum, S. R. M., Inc. (Woodworking cutters), 503 N. 11th St., Philadelphia, Pa.
Osada Sheet Metal & Wood Works (Water closet seats), 1406 So. Front St., Philadelphia, Pa.
Osborn Mfg. Co., The (Brushes and foundry supplies), 5401 Hamilton Ave., N. E., Cleveland, O.; 155 No. Clark St., Chicago; 2699 Guion St., Detroit; 61 1st St., San Francisco.
Osborne, C. S. & Co. (Leather tools), Warren St., Harrison, N. J.
Osgood Co., The (Machinery), Marion, Ohio.
Osgood, J. L., Tool Co. (File and tool handles), 45 Pearl St., Buffalo, N. Y.
Oslund Specialty Co. (Concrete inserts), 218 So. Exchange St., Saint Paul, Minn.
Oster Mfg. Co., The (Threading mach'y), 2068 E. 61st Pl., Cleveland, O. (See index to advertisement, pages 7, 8 and 9.)
Oswego Tool Co. (Tools), 121-6 W. First St., Oswego, N. Y.; branches in principal cities.
Otis Elevator Co. (Elevators), 11th Ave. and 26th St., New York, N. Y. Branches in all cities.
Otley Paint Mfg. Co., The (Pipe joint cement, etc.), 1742 No. Winchester Ave., Chicago, Ill.
Ottemiller, Wm. H., Co. (Screws), M. P. R. R. and Pattison St., York, Pa. (See index to advertisement, pages 7, 8 and 9).
Otto Engine Works (Gas engines, etc.), 33d and Walnut Sts., Philadelphia, Pa.; 15 S. Clinton St., Chicago; 244 Fulton St., New York.
Otto, Wm. H., Metal Goods Corp., 401 Saint Paul Ave., Jersey City, N. J.
Ottumwa Iron Works (Hoisting engines), Ottumwa, Ia.
Overpack, S. C. (Dump carts, etc.), 87 Pine St., Manistee, Mich.
Owen Bucket Co., The (Coal and ore buckets), Rockefeller Bldg., Cleveland, O.
Owensboro Ditcher & Grader Co. (Road machinery), Owensboro, Ky.
Oxford Waste Co. (Cotton and woolen waste), 4015-19 Paul, St., Frankford, Philadelphia, Pa.
Oxweld Acetylene Co. (Oxy-acetylene apparatus), 30 E. 42nd St., New York, N. Y.; 3642 Jasper Place, Chicago, Ill.; Newark; San Francisco.
Oxy-Acetylene Equipment Co. (Welding equipment), 830 Humboldt St., Brooklyn, N. Y.
Ozark Mfg. Co. (Boiler compounds), 9861 Lorain Ave., Cleveland, O.

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Paasche Airbrush Co. (Painting machines and equipment), 1921 Diversey Parkway, Chicago, Ill.
Pabst, Fred, Company (Pipe nipples), 917 Chestnut St., Milwaukee, Wis.
Pacific Belting Co. (Leather belting), 5220 20th Ave., N. W., Seattle, Wash.
Pacific Chemical Co. (Boiler compounds, etc), 1421 No. Main St., Los Angeles, Cal.
Pacific Coast Forge Co. (Machine screws and nuts), 3800 Iowa St., Seattle, Wash.
Pacific Coast Rubber & Sup. Co. (Packing), 316 Mission St., San Francisco, Cal.
Pacific Coast Steel Co. (Steel mill products), Rialto Bldg., San Francisco, Cal.
Pacific Faucet Mfg. Co. (Plumbers' brass goods), 940 E. 60th St., Los Angeles, Cal.
Pacific Flush Tank Co. (Sewage ejectors, etc.), 4241 Ravenswood Ave., Chicago, Ill.
Pacific Machine Tool Co. (Drill presses, etc.), 325 Commercial St., Los Angeles, Calif.
Pacific Metal Works (Bearing metal), 153-159 1st St., San Francisco.
Pacific Steel Boiler Corp'n (Heating boilers), Waukegan, Ill.
Packer Auto Specialty Co. (Auto wrenches), 1464 So. Michigan Ave., Chicago, Ill.
Page Belting Co. (Leather belting, etc.), Concord, N. H.; New York; Chicago; Boston; Philadelphia.
Page Water Tube Boiler Co. (Boilers), 815-819 Larrabee St., Chicago, Ill.
Page, Wm. H., Boiler Co., The (Heating boilers, etc.), 200 Madison Ave., New York, N. Y.
Paige & Jones Chemical Co. (Feed water treatment), 461 Fourth Ave., New York, N. Y.
Paine Company (Toggle bolts), 2951 Carroll Ave., Chicago.
Palmer, A. E., & Sons (Glue room clamps and machinery), Owosso, Mich.
Palmer Co., The (Thermometers, etc.), 804 E. Court St., Cincinnati, O.
Palmer-Bee Co. (Conveying equipment), 2778-94 E. Grand Blvd., Detroit, Mich.
Palmer Bros. Engines, Inc. (Gas engines), Cos Cob, Conn.
Palmer, N., Belting Co., The (Leather belting), 571 Iranistan Ave., Bridgeport, Conn.
Palmeter Tool Company (Wrenches), Jamestown, N. Y.
Palnut Co. (Lock nuts), 315 Colt St., Irvington, N. J.
Pancoast, Henry B., Co. (Steam fittings), 950 No. Front St., Philadelphia, Pa.
Panhard Oil Corp. (Oils and lubricants), 122 Greenwich St., New York.
Pannier Bros. Stamp Co. (Steel stamps), 207-209 Sandusky St., Pittsburgh, Pa.
Paramount Reamer Corp. (Mandrels, etc.), Parkersburg, W. Va.
Paragon Brass Mfg. Co., (Plumbing brass goods), 2535 East 79th St., Cleveland, O.
Paragon Gear Works (Evans Stamping & Plating Co.) (Gears), Cushman St., Taunton, Mass.
Paragon Tool Co. (Boiler makers' tools), 620 E. Pine St., Seattle, Wash.; Portland, Ore.
Para Rubber Co. (Shower Curtains), 341 Halsey St., Newark, N. J.
Pardee Steel Corp. (Steel mill products), Perth Amboy, N. J.; 447 Drexel Bldg., Philadelphia, Pa.
Pardel Corp. (water tube boilers), Sheridan Bldg., Philadelphia, Pa.
Park Chemical Co. (Case hardening compounds), 3467 Lovett St., Detroit, Mich.
Park Mfg. Co., The (Power pumps, etc.), Charlotte, N. C.
Parker, A. A. (Contractors' pumps), Waterford, N. Y.
Parker Appliance Co., The (Brass pipe couplings), 10320 Berea Rd., Cleveland, O.
Parker, Chas. Co., The (Vises, etc.), 48 Elm St., Meriden, Conn.; 25 Murray St., New York.
Parker Cup & Specialty Works (Valve cups), Parkers Landing, Pa.
Parker-Kalon Corporation (Drive screws), 200 Varick St., New York, N. Y.
Parker Rust-Proof Co. (Rust-proof process), 2177 E. Milwaukee Ave., Detroit Mich.
Parker, S. E. (Hoisting apparatus), 3800 N. Kilbourn Ave., Chicago, Ill.
Parker Stamp Works, Inc., The (Steel Stamps), 1-5 Laurel St., Hartford, Conn.
Parker White Metal & Machine Co. (Die castings), Erie Pa.; 502 Book Bldg., Detroit.
Parker Wire Goods Co. (Furnace chain, etc.), Washington & Lamartine Sts., Worcester, Mass.
Parkesburg Iron Co. (Boiler tubes, etc.), Parkesburg, Pa.; New York, Boston, San Francisco, Philadelphia, Chicago.

Parks Ball Bearing Machinery Co. (Woodworking mach'y), 1546 Knowlton St., N. S., Cincinnati, O.
Parks-Cramer Co. (Humidifiers), Fitchburg, Mass.; Boston, Mass.; Charlotte, N. C.
Parks, Harry S. Co. (Indicating instruments), Real Estate Trust Bldg., Philadelphia, Pa.
Parrott Heater Co., 406 Jefferson Ave., Detroit, Mich.
Parsons Co., The (Ditching machines), Newton, Ia.; Chicago, Kansas City, Mo.
Partridge, E. O. (Grinders), 2047 W. Lake St., Chicago.
Partridge-Scotford Stamp & Stencil Co. (Time checks, etc.), 915 Baltimore Ave., Kansas City, Mo.
Paschall Tool Co. (Lathe attachments), foot of West 7th St., Long Beach, Calif.
Patch, F. R., Mfg. Co. (Hoisting engines), Rutland, Vt.
Patent Scaffolding Co., The (Ladders, etc.), 1550 Dayton St., Chicago, Ill.
Paterson Asbestos Mfg. Co. (Asbestos products), 170 Clay St., Paterson, N. J.
Patterson, C. T., Co., Ltd. (Sawmill specialties), 802 So. Peters St., New Orleans, La.
Patterson-Kelley Co., Inc. (Water heaters), 101 Park Ave., New York, N. Y.
Patterson Lubricating Co. (Greases, metal polish, belt dressing), 11 Storer St., Boston, Mass.
Pattin Bros. Co., The (Engines, pumps, etc.), Marietta, O.
Paul, J. C., & Company (Metal polish), 930 Roscoe St., Chicago, Ill.
Paulus, Jos. C., & Co. (Leather belting), 2507-11 Potter St., Philadelphia, Pa.
Pawtucket Mfg. Co. (Bolts, nuts, rivets), 327 Pine St., Pawtucket, R. I.
Paxson, J. W. Co. (Foundry supplies), Luzerne and D. Sts., Philadelphia, Pa.; Providence, R. I.; Baltimore; Newark; Rochester.
Paxton-Mitchell Co., The (Metallic packing), 27th and Martha Sts., Omaha, Neb.
Payson Mfg. Co., The (Truck casters, etc.), 2916-30 W. Jackson Blvd., Chicago, Ill.
Pearson, E. I., Corp., The (Electric lighting plants), 2960 Jessamine St., Cincinnati, O.
Pearson Mfg. Co. (Nailing tools), Robbinsdale, Minn.
Pease, C. F., Co., The (Drawing instruments), 813 N. Franklin St., Chicago, Ill.; New York.
Pease, P. L., & Co. (Chemical closets), Lancaster, Pa.
Pech, Gus, Foundry & Mfg. Co. (Well drilling mach'y), Le Mars, Ia.
Pechin Belting Co. (Leather belting), Torresdale Ave. and Orchard St., Philadelphia, Pa.
Peck Bros. & Co. (Plumbers' brass goods), 125 Chestnut St., New Haven, Conn.
Peck, E. E., Co., Inc. (Rivets and washers), Medina, N. Y.
Peck, Stow & Wilcox Co., The (Mechanics' tools), Southington, Conn.; 2176 W. 3d St., Cleveland, O.
Pecora Paint Co., Inc. (Paint, etc.), 4th and Sedgley Ave., Philadelphia, Pa.
Pedrick Tool & Machine Co. (Milling and boring machines), 3644 No. Lawrence St., Philadelphia, Pa.
Peerless Alloy Co., The (Bearing metal), 1409 Blake St., Denver, Colo.
Peerless Automatic Machine Co., The (Screw machines and products), 1962 W. 77th St., Cleveland.
Peerless Belting Co. (Belting), Gardenville, N. Y.
Peerless Belt Lacing Machine Co. (Belt lacing machinery), Swanson and Moore Sts., Philadelphia, Pa.
Peerless Drawn Steel Co. (Steel), Massillon, O.; branches in principal cities.
Peerless Electric Co., The (Electric motors, fans, etc.), Warren, O.
Peerless Foundry Co. (Cast iron pipe fittings), 5602 Baum Blvd., Pittsburgh, Pa.
Peerless Heater Co. (Heating boilers), 5602 Baum Blvd., Pittsburgh, Pa.
Peerless Level & Tool Co., The (Levels), Sterling, Ill.
Peerless Machine Co. (Metal cutting machines), 1330 Clark St., Racine, Wis.
Peerless Manufacturing Company (Flue scraper), Albany, Ga.
Peerless Mfg. & Supply Co. (Brass bolts, screws, etc.), 22 Warren St., New York, N. Y.
Peerless Pneumatic Systems, Inc. (Painting machines and equipment), 118 North Jefferson St., Chicago, Ill.
Peerless Range Boiler Corp. (Range boilers), 105 West Monroe St., Chicago, Ill.
Peerless Surfacing Machine Co., Inc. (Sanding machines), Railroad Ave., Troy, N. Y.
Pekor Iron Works (Steam engines, valves, etc.), Columbus, Ga.
Pels, Henry, & Co. (Mach'y and railroad supplies), 90 West St., New York, N. Y.
Pelton Water Wheel Co. (Pumps), 2929 Nineteenth St., San Francisco, Cal.
Penberthy Injector Co. (Steam specialties), 1262 Holden Ave. and Grand Trunk Ry., Detroit, Mich.; New York. (See index to advertisement, pages 7, 8 and 9).
Penfield Saw Works, The (Saws and machine knives), Riverside Ave., Bristol, Conn.
Penn Brass & Copper Co., The (Tubing), Erie, Pa.
Penn Engineering Co., The (Heating specialties), 311 Cherry St., Philadelphia, Pa. (See index to advertisement, pages 7, 8 and 9.)
Penn Engineering Co. (Vise post and pipe bender), 511 No. 3rd St., Reading, Pa.
Penn Hardware Co. (Machine screws and nuts), Reading, Pa.
Penn Petroleum & Supply Co. (Oils), 61st St. and Eastwick Ave., Philadelphia, Pa.
Pennsylvania Boiler Works (Tanks and boilers), E. 12th St., Erie, Pa.
Pennsylvania Engineering Works (Steel mill equipment), New Castle, Pa.
Pennsylvania Flexible Metallic Tubing Co. (Flexible tubing and rivet guns), Broad & Race Sts., Philadelphia, Pa.
Pennsylvania Furnace & Iron Co. (Gas furnaces, etc.), 316 Pine St., Warren, Pa.
Pennsylvania Globe Rotary Oil Burner Co. (Fuel oil burners), 1934 Market St., Philadelphia, Pa.
Pennsylvania Lubricating Co. (Cutting lubricants), 34th and A. V. R. R., Pittsburgh, Pa.
Pennsylvania Pneumatic Co. (Air compressors), Erie, Pa.; 956 Ellicott Sq., Buffalo.
Pennsylvania Pump & Compressor Co. (Pumps, etc.), Easton, Pa.
Pennsylvania Range Boiler Co. (Tanks and boilers), 2040 No. 10th St., Philadelphia, Pa.
Pennsylvania Rubber Co. (Belting, hose, etc.), Jeannette, Pa.; Chicago; Cleveland; Detroit; San Francisco.
Pennsylvania Smelting Co. (Pig lead), 2409 First National Bank Bldg., Pittsburgh, Pa.
Pennsylvania Structural Slate Co. (Plumbing slate and products), First National Bank Bldg., Easton, Pa.
Peoria Overhead Washer Co. (Automobile washers), Peoria, Ill.
Percon Engineering Co., The (Pulley covering) Swampscott, Mass.
Perfect Gas Controller & Fixture Co. (Gas regulators), 10103 Prospect Ave., Chicago, Ill.
Perfect Tank & Seat Co. (Water closet tanks and seats), Syracuse, N. Y.
Perfection Grate & Supply Co. (Grates), 164 Birnie, Springfield, Mass.
Perfection Leak Closing Clamp Mfrs. (Leak closing clamps), 125 W. William St., Lockland, O.
Perfection Manufacturing Co. (Rotary pumps), 2131 East Hennepin Ave., Minneapolis, Minn.
Perfection Stove Company, Inc. (Water heaters), 7609 Platt Ave., Cleveland, O.
Perfection Wood-Steaming Retort Co. (Wood steamers), Parkersburg, W. Va.
Perkes, Chas., Co. (Brass pipe fittings), 627-629 Arch St., Philadelphia, Pa.
Perkins, B. F., & Son, Inc. (Ventilating fans), Holyoke, Mass.
Perkins, H. K., Co., The (Brass goods), 4 Porter St., Taunton, Mass.
Perkins Machine Co., The (Presses, drop hammers, etc.), Warren, Mass.
Perkins Marine Lamp Co. (Marine lamps), 1943 Pitkin Ave., Brooklyn, N. Y.
Permutit Co., The (Water filters and softeners), 440 Fourth Ave., New York, N. Y.; branches in principal cities.
Perolin Co. of America, The (Boiler metal treatment), 1112 W. 37th St., Chicago, Ill.
Perrin, Wm. R., & Co. (Power presses), 504 Fisher Bldg., Chicago, Ill.
Perry, T. O. (Heat regulators), 324 No. Euclid Ave., Oak Park, Ill.
Peru Brass & Mfg. Co. (Plumbing brass goods), Peru, Ind.
Peters Pump Co. (Pumps, etc.), Kewanee, Ill.
Peterson, F. W., Co. (Wood handles), 83 Spring St., New York, N. Y.
Petrium Sanitary Sink Co. (Kitchen sinks), 1438 5th St., Berkeley, Cal.
Petroleum Heat & Power Co. (Fuel oil burners), 1775 Broadway, New York.
Petroleum Iron Works Co. (Steel barrels), Sharon, Pa.; 25 West 43rd St., New York, N. Y.; Liberty Central Trust Co. Bldg., St. Louis, Mo.; 417 Market St., San Francisco, Calif.; 1110 Carter Bldg., Houston, Tex.; Apartado 83 Bis. Tampico, Mex.; Casper, Wyo.; Tulsa, Okla.
Pettingell Machine Co. (Wood and metal working mach'y.), Amesbury, Mass.
Pettes & Randall Co. (Watchman's clocks), 150 Nassau St., New York, N. Y.
Petty & Co., Inc., J. K. (Tubular boilers), Harrison Bldg., Philadelphia, Pa.
Phelps Boiler Works (Heating boilers, etc.), Oskaloosa, Iowa.
Phenix Mfg. Co. (Garage door hardware), 026 Center St., Milwaukee, Wis.

Pheoll Mfg. Co. (Brass nuts, screws, etc.), 5700 W. Roosevelt Road, Chicago, Ill.; 205 Kresge Bldg., Detroit; 268 Market St., San Francisco; L. C. Smith Bldg., Seattle. (See index to advertisement, pages 7, 8 and 9.)

Philadelphia Belting Co. (Leather belting, etc.), 6th and Spring Garden Sts., Philadelphia, Pa.; 17 Battery Pl., New York; 126 High St., Boston, Mass.; 614 W. Lake St., Chicago; 304 Oliver Bldg., Pittsburgh.

Philadelphia Elevator Co., Inc. (Elevators), 3717 Filbert St., Philadelphia.

Philadelphia Gear Works (Gears), Richmond and Tioga Sts., Philadelphia, Pa.

Philadelphia Grease Mfg. Co., The (Lubricants), 846 S. Swanson St., Philadelphia, Pa.; Boston; New York.

Philadelphia Meter Co. (Water meters), 942 Real Estate Trust Bldg., Philadelphia, Pa.

Philadelphia Pin Key Duplicating Co. (Key machines), 222 So. 10th St., Philadelphia, Pa.

Philadelphia Pipe-Bending Co., The (Pipe coils, bends, etc.), 4135-65 N. Fifth St., Philadelphia.

Philadelphia Thermometer Co. (Thermometers), 915 Filbert St., Philadelphia, Pa.

Philadelphia Tram Rail Co. (Overhead trolley tracks), 3420 No. Weikel St., Philadelphia, Pa.

Philbrick Cutter Head Co. (Cutter heads), 536 1st Ave. So., Seattle, Wash.

Philips Pressed Steel Pulley Wks., Inc. (Steel pulleys, 2716 Salmon St., Philadelphia, Pa.

Phillips, Doup and Co., Inc. (Wheelbarrows, cars, etc.), First Ave. at 44th St., Brooklyn, N. Y.

Phillips Drill Co. (Drilling machines), 1537 Cortland St., Chicago, Ill.

Phillips-Laffitte Company (Welding and brazing supplies), Pennsylvania Bldg., Philadelphia, Pa.

Phillips Lead & Supply Co. (Lead products), 91 So. Main St., Providence, R. I.

Phinney Bros. Co. (Oils, lubricants, etc.), Oil City, Pa.

Phoenix Brass Foundry (Plumbing brass goods), Irvington, N. J.

Phoenix Fire Extinguisher Co., Norwich, Conn.

Phoenix Hardware Mfg. Co. (Clamps and vises), 49 Illinois St., Buffalo, N. Y.

Phoenix Machine Works (Condensation pumps), Water St., Mobile, Ala.

Phoenix Oil Co., The (Dressing, lubricants, etc.), 2554 W. 5th St., Cleveland, O.; 30 Church St., New York; 1525 Newberry Ave., Chicago.

Phoenix Specialty Mfg. Co. (Washers, gaskets, etc.), 155 Wooster St., New York, N. Y.

Phosphor Bronze Smelting Co. (Phosphor bronze), 2200 Washington Ave., Philadelphia, Pa.

Pickering Governor Co., The (Engineroom specialties), Portland, Conn.

Pierce, Butler & Pierce Mfg. Corp. (Heating and plumbing goods), 41 E. 42nd St., New York, N. Y.

Pierce Corp., The (Truck chocks), Anderson, Ind.

Pierce Mfg. Co. (Pipe joint cement), 785 Housatonic Ave., Bridgeport, Conn.; Syracuse, N. Y.; 32 Foster St., Worcester, Mass.

Pierce, Wm. B., Co., The (Flue cleaners), 45 N. Division St., Buffalo, N. Y.

Pike Mfg. Co., The (Grinders, etc.), Pike, N. H.; 151 Chambers St., New York, N. Y.

Pilley Packing & Flue Brush Mfg. Co. (Packings and flue cleaners), 606-08-10 So. Third St., St. Louis, Mo.; 71 Fulton St., New York.

Pilot Packing Co., Inc.(Metallic packing), 122 S. Michigan Ave., Chicago, Ill.

Pioneer Alloy Products Co. (Cocks), 16601 Euclid Ave., Cleveland, O.

Pioneer Brass Works (Cocks, couplings, castings, etc.), 23rd St., & L. E. & W. Ry., Indianapolis, Ind.

Pioneer Caster & Mfg. So. (Truck casters), Elkhart, Ind.

Pioneer Rubber Mills (Mechanical rubber goods), 345-353 Sacramento St., San Francisco, Cal.; branches in all principal cities.

Pipe Machinery Co., The (Cutting and threading mach'y), 930 E. 70th St., Cleveland, O.

Pipe Nipple & Specialty Co. (Pipe nipples, etc.), 537 Coster St., New York, N. Y.

Piqua Handle & Mfg. Co., The (Valve handles), Piqua, O.

Pirsch, Peter, & Sons Co. (Fire dept. equip.), Kenosha, Wis.

Piston Valve Oiler Co. (Oilers), Cedar Falls, Iowa.

Pittsburgh Brass Mfg. Co. (Brass goods), Penn Ave. and 32d St., Pittsburgh, Pa.

Pittsburgh Crushed Steel Co. (Abrasive material), 61st St. and A. V. R. R., Pittsburgh, Pa.

Pittsburgh Electric Furnace Corp. (Electric furnaces), Foot of 32d St., Pittsburgh, Pa.

Pittsburgh Engineering Co. (Pipe fittings and valves), Jeannette, Pa.

Pittsburgh Filter & Eng. Co. (Water filters), Farmers Bank Bldg., Pittsburgh, Pa.; 617 Rialto Bldg., Kansas City, Mo.

Pittsburgh Gage & Supply Co. (Engineering specialties), 30th St. and Liberty Ave., Pittsburgh, Pa.

Pittsburgh Grinding Wheel Co. (Grinding wheels), Rochester, Pa.; Chicago; Cleveland; New York; Philadelphia.

Pittsburgh Incinerator Mfg. Co. (Garbage burners), Ferguson Bldg., Pittsburgh, Pa.

Pittsburg Instrument & Machine Co. (Hardness testing machines), 1026 Reedsdale St., Pittsburgh, Pa.

Pittsburgh Knife & Forge Co. (Mine car hitchings), First Nat'l Bank Bldg., Pittsburgh, Pa.

Pittsburgh Lamp, Brass & Glass Co. (Fire extinguishers), Liverpool St., Pittsburgh, Pa.

Pittsburgh Machine Tool Co. (Engine lathes), Braddock, Pa.; Corey Ave., Pittsburgh, Pa.

Pittsburgh Malleable Iron Co., Wrench Dept. (Pipe wrenches), 30 Church St., New York, N. Y.

Pittsburgh Meter Co. (Meters), 7804 Susquehanna St., Pittsburgh, Pa.; New York; Chicago; Kansas City; Columbia, S. C.; Seattle, Los Angeles.

Pittsburgh Piping & Equipment Co. (Pipe bends, etc.), 43d St. & A. V. R. R., Pittsburgh, Pa.; branches in principal cities.

Pittsburgh Plate Glass Co. (Glass bathroom specialties), Frick Bldg., Pittsburgh, Pa.

Pittsburgh Plate Glass Co. (Patton-Pitcairn Division.) (Paints), Ft. Chester Ave., Newark, N. J.; Milwaukee, Wis.

Pittsburgh Pump Co. (Force pumps), 20 Fourth St., Pittsburgh, Pa.

Pittsburgh Range Boiler Co. (Boilers, tanks, etc.), Pittsburgh, Pa.

Pittsburgh Reinforced Brazing & Machine Co. (Steel valves and fittings), 2525 Liberty St., Pittsburgh, Pa.

Pittsburgh Rivet Co. (Rivets, bolts, etc.), 38th and Junction R. R., Pittsburgh, Pa.

Pittsburgh Screw & Bolt Co. (Bolts, nuts and rivets), Preble Ave., Pittsburgh, Pa.

Pittsburgh Shovel Co., The (Shovels, scoops and spades), Oliver Bldg., Pittsburgh, Pa.

Pittsburgh Stamp Co., Inc. (Steel stamps), 817 No. Canal St., Pittsburgh, Pa.

Pittsburgh Steel Co. (Steel wire, hoops, fencing, etc.), Union Trust Bldg., Pittsburgh, Pa.; 332 S. Michigan Ave., Chicago, Ill.; Monadnock Bldg., San Francisco; Exchange Bldg., Memphis, Tenn.; Central Bank Bldg., Dallas, Tex.

Pittsburgh Steel Products Co. (Tubing), Union Trust Bldg., Pittsburgh, Pa.; Equitable Life Bldg., Chicago.

Pittsburgh Thermolene Co. (Liquified gas), 45 So. 20th St., Pittsburgh, Pa.

Pittsburgh Tool Steel Wire Co. (Tool steel), Monaca, Pa.

Pittsburgh Valve & Fittings Co (Valves), Barberton, O.; Frick Bldg., Pittsburgh, Pa.

Pittsburg Water Heater Co. (Water heaters), Pittsburgh, Pa.

Pittsburgh White Metal Co. (Babbitt metal), 3116 Penn Ave., Pittsburgh, Pa.; New York; Boston.

Plant Engineering & Equipment Co., Inc., 68 Summit St., Brooklyn, N. Y.; branches in principal cities.

Plant Co. (Leather belting), 322 First Ave., N., Minneapolis, Minn.

Platt Iron Works, The (Pumps, heaters, etc.), Keowee & Valley Sts., Dayton, O.

Plimpton Lift Truck Corporation, The (Factory trucks), 4 Elm Court, Stamford, Conn.; Hamilton, Canada.

Plomb Tool Co. (Forged hand tools), 2209 Santa Fe Ave., Los Angeles, Cal.

Plomo Specialty Mfg. Co., The (Belt dressing), 10616 Euclid Ave., Cleveland, O.

Plumb, Fayette R., Inc., (Hammers, hatchets), 4837 James St., Philadelphia, Pa.

Plumbers Woodwork Co., Algoma, Wis.

Plume & Atwood Mfg. Co., The (Brass, bronze and copper goods), 470 Bank St., Waterbury, Conn.; New York; Chicago; San Francisco.

Plummer-Huff Co. (Painting machines), Napoleon, Ohio.

Plunket, J. E., Machine Co. (Vises), 213-15 N. Ada St., Chicago, Ill.

Plymouth Cordage Co. (Manila rope), North Plymouth, Mass.

Plymouth Foundry & Machine Co. (Hand power punches), Plymouth, Wis.

Plymouth Metal Products Co. (Engines), Plymouth, Wis.

Plymouth Mfg. Co. (Pipe vise), 2149 Walnut St., Chicago, Ill.

Pneumatic Scale Corp., Ltd. (Paper box machinery), Norfolk Downs, Mass.; Boston, New York, Chicago.

Pneumelectric Corp., The (Rock drills, etc.), 221 Wyoming St., Syracuse, N. Y.

Pneumercator Co., Inc., The (Gages and valves), 40 Flatbush Ave. Extension, Brooklyn, N. Y.

Pole & Tube Works, Inc., The (Flag pole trucks), Newark, N. J.
Poliakoff, R. (Machine shop rules), 709 Sixth Ave., New York, N. Y.
Polk, A. J., & Son Co. (Reamers, etc.), Millersburg, Pa.; Chicago, Ill.
Pollard Bros. Mfg. Co., Inc. (Factory furniture, 4034 No. Tripp Ave., Chicago, Ill.
Pollard, Joseph G., Co. Inc. (Drills, tools, etc.), 142 Raymond St., Brooklyn, N. Y.
Pollock Brush Co. (Brushes), 25-27 N. 4th St., Easton, Pa.
Polygon Products Co. (Rust dissolver), 141 Milk St., Boston, Mass.
Pond & Robinson (Metal cutting saws), 1204 Howard St., San Francisco, Cal.
Poole Engineering & Machine Co. (Gears), Woodberry St., Baltimore, Md.
Pophal Manufacturing Co. (Saws, etc.), Wausau, Wis.
Porcela-Radax Co. (Tile and marble cleaners), New Brighton, Pa.
Porcelain Enamel Co., 8th & O'Donnell Sts., Baltimore, Md.
Porcupine Co. (Boilers), Fairfield, Conn.
Porter-Cable Machine Co., The (Milling attachments), N. Salina and Exchange Sts., Syracuse, N. Y.
Porter, H. K., Inc. (Bolt clippers), 6 Ashland St., Everett, Mass.
Porter, J. E., Corp. (Door hangers), 455 Guion St., Ottawa, Ill.; 426 Washington Ave., No. Minneapolis.
Portland Co., The (Paper mach'y, boilers, etc.), Portland, Me.
Portland Stove Foundry Co. (Laundry stoves, sinks, etc.) P. O. Box 624, Portland, Me.
Positive Lock Washer Co., The (Nutlock washers), Avenue A and Miller St., Newark, N. J.
Potomac Pottery Co. (Sanitary pottery), Keyser, W. Va.
Potter & Johnston Machine Co. (Lathes, etc), 1027 Newport Ave., Pawtucket, R. I.
Potter Mfg. Co. (Hoisting and excavating mach'y), 3505 E. Washington St., Indianapolis, Ind.
Potts Mfg Co. (Fire escapes), Mechanicsburg, Pa.
Powell Pressed Steel Co. (Portable platforms), Hubbard, Ohio.
Powell, Wm., Co., The (Engineering specialties), 2525 Spring Grove Ave., Cincinnati, O. (See index to advertisement, pages 7, 8 and 9).
Power Engineering Co., The (Steel belting), 533 West Rayen Ave., Youngstown, O.
Power King Drill Corp., Warsaw, Ind.
Power, L. & Co. (Woodworking mach'y), 2814 Grays Ferry Ave., Philadelphia, Pa.
Power Mfg. Co., The (Oil engines), Marion, O.
Power Plant Equipment Co. (Superheaters), Coco-Cola Bldg., Kansas City, Mo.
Power Plant Specialty Co. (Steam and oil separators), 440 So. Dearborn St., Chicago, Ill.
Power Specialty Co. (Steam superheaters, etc.), 111 Broadway, New York, N. Y.; branches in principal cities.
Power Turbo Blower Co. (Power plant specialties), 350 Madison Ave., New York, N. Y.
Powers Regulator Co. (Regulators, air compressors, etc.), 2720 Greenview Ave., Chicago, Ill.
Powers - Weightman - Rosengarten Co. (Calcium chloride), 916 Parrish St., Philadelphia, Pa.
Powhatan Brass & Iron Works (Brass fittings), Ranson, W. Va.
Prairie du Chien Tool Co. (Grinders), Prairie du Chien, Wis.
Prat-Daniel Corp'n (Air Heaters), 101 Park Ave., New York, N. Y.
Pratt Chuck Co., The (Chucks, etc.), Frankfort, N. Y.; 1170 Broadway, New York.
Pratt, Wm. E., Mfg. Co. (Wrenches- jacks, belt hooks, etc.), 15 West Lake St., Chicago, Ill.
Pratt & Whitney Company (Metal working machinery, small tools, etc.), 436 Capitol Ave., Hartford, Conn.
Precision Grinding Wheel Co., Inc. (Grinding wheels), Torsdale Ave., Holmesburg, Philadelphia, Pa.
Precision Thermometer & Instrument Co. (Thermometers), 1434 Brandywine St., Philadelphia, Pa.
Precision Truing Machine & Tool Co., The (Wheel truing tools), Front & Scott Sts., Covington, Ky.
Preis, H. P. & Co., Inc. (Engraving machines), Campbell St., Newark, N. J.
Premier Electric Co. (Gear and wheel pullers), 3800 Ravenswood Ave., Chicago, Ill.
Premier Mfg. Co., The (Pumps, gas and water supplies), Sandy Hook, Conn.
Premium Metal & Packing Company, Inc. (Bearing metal), Wilkinsburg, Pa.
Prentice, L. H., Co. (Heating specialties), 330 Sherman St., Chicago, Ill.
Prentiss Vise Co. (Vises, etc.), 110 Lafayette St., New York, N. Y.; Watertown, N. Y.
Presbrey Stove Lining Co. (Fire brick, etc.), 600 Somerset Ave., Taunton, Mass.
Prescott Co., The (Power transmission mach'y), Menominee, Mich.; 119 Jackson St., Seattle.
Prescott, J. B., & Son (Garbage burners), Webster, Mass.
Pressed Metal Machinery Co. (Riveting machines), 11 S. Clinton St., Chicago, Ill.
Pressed Steel Tank Co. (Tanks, boilers, etc.), Greenfield Ave., Milwaukee, Wis.; 208 South LaSalle St., Chicago, Ill.; 233 Broadway, New York.
Presstite Engineering Co., The (Sewer pipe gaskets), 4327 Duncan Ave., St. Louis.
Prest-O-Lite Co., The (Welding apparatus), Indianapolis, Ind.; Atlanta; Baltimore; Boston; Buffalo; Chicago; Cincinnati; Cleveland; Dallas; Davenport; Denver; Des Moines; Detroit; Indianapolis; Indian Orchard, Mass.; Jacksonville; Kansas City; Los Angeles; Memphis; Milwaukee; Minneapolis; New York; Omaha; Philadelphia; Pittsburgh; St. Louis; St. Paul; San Antonio; San Francisco; Seattle; Syracuse.
Preston Co., Inc., Horace G. (Packings, washers, etc.), 2581 Beecher Ave., Detroit, Mich.
Pribnow Saw Sharpening Machine Co. (Filing room mach'y), 424 E. Third St., Los Angeles, Calif.
Price Mfg. Co. (Pyrometers), 12368 Euclid Ave., Cleveland, Ohio.
Price, G. W., Pump & Engine Co. (Pumps and engines), 1350 Folsom St., San Francisco, Cal.
Price-Pfister Brass Mfg. Co. (Plumbing brass goods), Los Angeles, Cal.
Prier Brass Mfg. Co. (Brass goods), 15th St. and Blue River Blvd., Kansas City, Mo.
Prier, Walter H., Company (Radiator valves), 450 East Ohio St., Chicago, Ill.
Priestman Ejector & Pump Co. (Sewage ejectors, etc.), 328 Chestnut St., Philadelphia, Pa.
Pringle & Brodie Machinery Co. (Woodworking mach'y.), 556 W. Polk St., Chicago, Ill.
Proctor & Schwartz, Inc. (Veneer dryers, etc.), 7th and Tabor Road, Philadelphia; Chicago; Charlotte, N. C.; New York; Providence.
Procunier, William L. (Tapping attachments), 18 S. Clinton St., Chicago, Ill.
Production Machine Co. (Polishing machines), Greenfield, Mass.
Production Tool Co. of America (Milling cutters), Foster and LeGrand, Detroit, Mich.
Products Mfg. & Sales Co. (Babbitt metal retainers), 530 Grand Ave., Milwaukee, Wis.
Progress Engineering Co. (Winches, etc.), 8060-61 Jenkins Arcade, Pittsburgh, Pa.
Progressive Mfg. Co. (Screw machine products), Torrington, Conn.
Progressive Metalware Corp. (Industrial Metalware), 542-48 Water St., New York, N. Y.
Prospect Boiler Co. (Tanks and boilers), Ward St., New Brunswick, N. J.
Prosser, Thomas, & Son (Boilermakers' tools), 11 Gold St., New York, N. Y.
Protection Products, Inc. (Waterproofing compounds), Kalamazoo, Mich.
Protecto Safety Appliance Co., The (Ammonia helmets), 69 Warren St., Newark, N. J.
Protexwell Corp. (Bath Curtains), 589 E. Illinois St., Chicago, Ill.
Proudfit Loose Leaf Co., The (Catalog binders), 25 Logan St., Grand Rapids, Mich.)
Providence Engineering Corp. (Engines), 521 S. Main St., Providence, R. I.
Providence Fittings Co. (Unions), 7 Water St., Boston, Mass.
Providence Steam Trap Co. (Steam specialties), 16 Diamond St., Providence, R. I.
Provost Engineering Corp. (Packing, steam separators), 270 Union Ave., Brooklyn, N. Y.
Prox, Frank, Co. (Heating boilers, etc.), Terre Haute, Ind.
Prudential Heater Co., The (Heating boilers), 18th & Magnolia Sts., Louisville, Ky.
Pryibil, P., Machine Co., Inc. (Power transmission and woodworking mach'y), 512 W. 41st St., New York, N. Y.
Pryko, Inc. (Steam traps), 39 Cortlandt St., New York, N. Y.
Puffer, W. E., & Sons (Furnace regulators), 234 Water St., New York City.
Puget Sound Metal Works (Bearing metal), 1125 St. Paul Ave., Tacoma, Wash.
Pugh, J. T., Inc. (Earth Augers), 31st and Ludlow Sts., Philadelphia, Pa.
Pulaski Foundry & Mfg. Corp. (Heavy machinery), Pulaski, Va.
Pulmor Belt Mfg. Co. (Leather belting), 208 E. Columbia St., Fort Wayne, Ind. (See index to advertisement, pages 7, 8 and 9.)
Pulmosan Safety Equipment Co. (Breathing devices), 386 Jay St., Brooklyn, N. Y.; Cleveland, Ohio.
Pulsometer Steam Pump Co. (Steam pumps), 220 W. 42d St., New York, N. Y.
Pulte-Korreck Machine Co. (Dies and mach'y), 231 Ionia Ave., N. W., Grand Rapids, Mich.
Pultex Manufacturing Co., The (Paper pulleys), 6110 Cedar Ave., Cleveland, O.

Pumpless Blow Torch Co. (Blow torches, etc.), Keystone Bldg., Pittsburgh, Pa.
Punxsutawney Foundry & Machine Co. (Brick and sand mach'y), Punxsutawney, Pa.
Puro Filters Corp. (Water filters), 436 Lafayette St., New York, N. Y.
Puro Sanitary Drinking Fountain Co. (Drinking fountains), Haydenville, Mass.
Purox Company (Welding apparatus), 314 Boston Bldg., Denver, Colo.
Pusey & Jones Co., The (Friction clutches), Poplar St., Wilmington, Del.
Putnam Foundry & Machine Co., The (Heating boilers), 1 Furnace St., Putnam, Conn.; Worcester, Mass.
Pyott Foundry Co. (Iron pulleys, sheaves and wheels), 328 N. Sangamon St., Chicago, Ill.
Pyramid Products Co. (Wire Stripper), 2311 S. State St., Chicago, Ill.
Pyrene Mfg. Co. (Fire extinguishers), 560 Belmont Ave., Newark, N. J.; Atlanta, Ga.; Chicago, Ill.; Kansas City, Mo.; San Francisco, Calif.
Pyrofoam Company, The (Fire extinguishers), 126 No. Union St., Chicago, Ill.
Pyrolectric Instrument Co. (Pyrometric instruments), 221 E. State St., Trenton, N. J.

Q

Q-S Sanitary Mfg. Co. (Drainage fittings, pipe benders, etc.), 411 W 5th St., Waterloo, Iowa.
Quadriga Mfg. Co., The (Blow torches, washers, etc.), 213 W. Grand Ave., Chicago, Ill. (See index to advertisement, pages 7, 8 and 9.)
Quaker City Cordage Company, The (Rope, cordage, etc.), 202-04 Walnut Place, Philadelphia, Pa.
Quaker City Rubber Co. (Hose, belting, packing, Comly & Wilnor Sts., Wissinoming, Philadelphia, Pa.; 30 E. Lacock St., N. S., Pittsburgh, Pa.; 53 Murray St., New York; 217 W. Huron St., Chicago; 168 Second St., San Francisco, Cal.
Queen City Machine Tool Co. (Shapers), 1405 Sycamore St., Cincinnati, O.
Queen Mfg. Co. (Bathroom fittings), 1647 No. Winchester Ave., Chicago, Ill.
Quick Meal Stove Co., Division American Stove Co. (Plumbers' furnaces), 825 Chouteau Ave., St. Louis, Mo.
Quickwork Co., The (Sheet metal machinery), St. Marys, O.; Grand Central Palace, New York.
Quigley Furnace Specialties Co., Inc. (Fire brick cement), 26 Cortlandt St., New York, N. Y.; Chicago, Philadelphia.
Quimby, Wm. E., Inc. (Pumps), 209 Parkhurst St., Newark, N. J.
Quincy Compressor Co. (Air compressors), 218 Main St., Quincy, Ill.
Quirin, John, & Bro. (Hydrants), St. Clair, Pa.

R

R-N-B Mfg. Company, (Brass and plumbing specialties), 625 West Jackson Blvd., Chicago, Ill.
Ra-Do Radiator & Sales Corp. (Radiators, etc.), 1808 Market St. Philadelphia, Pa.
Racine Iron & Wire Works (Hose clamps), 1006 Superior St., Racine, Wis.
Radiator Specialty Co. (Radiator compound), Charlotte, N. C.
Racine Tool & Machine Co. (Metal cutting machines), 1407 Jones Ave., Racine, Wis.
Radiex Sales Co. (Boiler compound), 42 W. Broadway, New York, N. Y.
Rado Co., The (Radiator valves), 194 Reed St., Milwaukee, Wis.
Ra-Do Radiator & Sales Corp., (Gas radiators), 1808 Market St., Philadelphia, Pa.
Rahmann, Geo., & Co. (Leather belting), 31 Spruce St., New York, N. Y.; Philadelphia; Newark, N. J.
Rahn-Larmon Co., The (Lathes), 2935 Spring Grove Ave., Cincinnati.
Rainbow Sprinkler Co. (Lawn sprinklers), Jacksonville, Fla.
Raleigh Iron Works Co. (Sawmill mach'y. etc.), Raleigh, N. C.
Ramey Company, The (Blowers), Columbus, O.
Ramsey Chain Co., Inc. (Transmission chain), 1031 Broadway, Albany, N. Y.
Randall Control & Hydrometric Corpn. (Irrigation meters), 523 Central Bldg., Los Angeles, Calif.
Randall-Faichney Co., Inc., The (Grease guns), 123 Heath St., Roxbury, Boston 20 Mass.
Randall Graphite Products Corp. (Graphite lubricators), 711-721 Fulton St., Chicago, Ill.
Randall Tramrail Co. (Overhead trolleys), 331 N. 2d St., Philadelphia, Pa.
Randle Machinery Co., The (Injectors, ejectors, etc.), 1723 Powers St., Cincinnati, O.
Randolph-Clowes Co., The (Brass and copper), 384 Bank St., Waterbury, Conn.; 253 Broadway, New York.
Raniville, F., Co. (Leather belting, belt dressing, etc.), 241-243 Pearl St., Grand Rapids, Mich.; 523 Eighth Ave., New York; 170 Summer St., Boston 9, Mass.; 118 S. Clinton St., Chicago, Ill.; 693 Mission St., San Francisco.
Ransom Mfg. Co. (Grinding and polishing mach'y), Oshkosh, Wis.
Ransom & Randolph Co., The, Industrial Div. (Milling cutters, blow torches), Superior & Chestnut Sts. Toledo, O.
Ransome Concrete Machinery Co. (Concrete mixers), Dunellen, N. J.; Chicago.
Rapid Heater Co. (Water heaters) Grand Rapids, Mich.
Rapid Safety Filter Co. (Water filters), 92 Pine St., New York, N. Y.
Rapid Safety Fire Extinguisher Co. (Fire extinguishers), 92 Pine St., New York, N. Y.
Rapid Spring Company(Pipe bending springs), 222-224 Second Ave., Pittsburgh, Pa.
Raritan Radiator Co. (Radiators and boilers), Raritan, N. J.
Rasmussen Co., Julius (Leather Belting), 111 W. Water St., Milwaukee, Wis.
Rathbun-Jones Engineering Co., The (Gas engines), Toledo, O.
Rath Mfg. Co. (Metal Polish), Hedley and Richmond Sts., Philadelphia, Pa.
Rauch Mfg. Co., The (Oil gates, hose couplings), Galena, Kan.
Rauschenberger, John, Co. (Rope and cordage), 85 W. Water St., Milwaukee, Wis.
Ravena Iron Co. (Iron pipe fittings), Ravena, N. Y.
Ravenswood Brass Foundry Co. (Bearing metal), 3159 Elston Ave., Chicago.
Rawlplug Co., Inc., The (Screw anchors), 66 W. Broadway, New York.
Ray Expansion Joint Co., Inc. (Expansion pipe joints), 12 Ohio State Bank & Trust Bldg., Akron, O.
Raybestos Co., The (Brake lining), Bostwick & Railroad Aves., Bridgeport, Conn.; Chicago; Detroit; San Francisco; Washington, D. C.
Raymond Bros. Impact Pulverizer Co. (Pulverizing mach'y), 1319 North Branch, Chicago, Ill.; Los Angeles, New York.
Raymond Lead Works (Lead products), 735 S. Washtenaw Ave., Chicago, Ill.
Raymond Mfg. Co. (Springs), Corry, Pa.
Reading Automatic Machine Co. (Chucking machines), S. W. cor. 3rd and Buttonwood Sts., Reading, Pa.
Reading Brass Works (Plumbing brass fittings), Schiller St., near Division, Reading, Pa.
Reading Chain & Block Corp. (Chain hoists), Kutztown Rd., Reading, Pa.
Reading Foundry & Supply Co. (Iron pipe and fittings), 522 Chestnut St., Reading, Pa.
Reading Heater & Supply Co. (Hot water regulators), Woodward and Church Sts., Reading, Pa.
Reading Iron Co. (Pipe mach'y, etc.), Baer Bldg., Reading, Pa.; Philadelphia; New York; Boston; Pittsburgh; Chicago; Cincinnati; Fort Worth, Tex.; Los Angeles, Baltimore.
Reading Saddle & Mfg. Co. (Bench vises), 316 Maple St., Reading, Pa.
Reading Scale & Machine Co. (Steam engines, power transmission mach'y etc., Front & Chestnut Sts., Reading, Pa.
Reading Steel Casting Co. (Valves and fittings), 929 Connecticut Ave., Bridgeport, Conn.
Reading Stove Works, The (Heating boilers), Front St. betw. Franklin & Chestnut, Reading, Pa.
Reading Wood Pulley Co. (Pulleys), 11th and Muhlenberg Sts., Reading, Pa.
Ready-Made Sign Co. (Metal signs), 39 E. 17th St., New York.
Ready Tool Co., The (Lathe and clamp dogs), 550 Iranistan Ave., Bridgeport, Conn.
Red Cross Mfg. Co., The (Pumps and windmills), Bluffton, Ind.
Red Jacket Mfg. Co. (Pumps, etc.), Davenport, Ia.
Redington, F. B., Co. (Revolution Counters), 112 S. Sangamon St., Chicago, Ill.
Reed Air Filter Co., Inc. (Air filters, etc.), 215 Central Ave., Louisville, Ky.
Reed, Francis, Co. (Drills), 43 Hammond St., Worcester, Mass.
Reed Hardware & Mfg. Co. (Lathes, gummers, guides), 1005 Ohio St., Cairo, Ill.
Reed Mfg. Co. (Vises, reamers, etc.), West 18th St., Erie, Pa.
Reed-Prentice Corp., (Machine tools), 677 Cambridge St., Worcester, Mass.; New York; Detroit.
Reed & Duecker (Leather belting), 171-75 N. Main St., Memphis, Tenn.
Reed Small Tool Wks. (Calipers, etc.), 38 Hermon St., Worcester, Mass.
Reed & Prince Mfg. Co. (Screw machine products), Duncan Ave., Worcester, Mass.
Reed & Skeppstrom, Inc. (Steel Stamps), 625 Jackson Blvd., Chicago, Ill.

Rees', Hans, Sons (Leather for belting, etc.), 39 Frankfort St., New York, N. Y.
Rees Mfg. Co. (Lifting jacks), 7501 Thomas Blvd., Pittsburgh, Pa.
Reeves Bros. Co. (Hydraulic mach'y), Alliance, O.
Reeves Mfg. Co. (Gas meters), Milford, Conn.
Reeves, Paul S. & Co. (Brass and copper castings), 1415-25 Catherine St., Station D, Philadelphia, Pa.
Reeves Pulley Company (Pulleys), Columbus, Ind.; 39 S. Clinton St., Chicago, Ill.
Reeves Specialty Company (Pipe joint cement), 1705 15th St., Denver, Colo.
Refilit Broom Mfg. Co. (Factory brooms), 185 Devonshire St., Boston, Mass.
Refinite Company, The (Water softener), Refinite Bldg., Omaha, Nebr.; 908 S. Mich. Ave., Chicago; 2206 Jefferson Co. Bank Bldg., Birmingham; 30 Church St., New York; 419 Call Bldg., San Francisco.
Regal Gasoline Engine Co. (Gas engines), Coldwater, Mich.
Reichel & Drews (Belt clamps), 452 No. Ashland Ave., Chicago, Ill.
Reid Bros. Co., Inc. (Universal angle fixtures), 59 Park St., Beverly, Mass.
Reid, Joseph, Gas Engine Co. (Gas engines), Oil City, Pa.
Reid-Way Co., The (Sanders), Cedar Rapids, Ia.
Reidy Machine Screw Co. (Pipe couplings), New Haven, Conn.
Reif Engine Company (Hydraulic Rams), 90 West St., New York, N. Y.
Reiff & Nestor Co. (Taps and reamers), Lykens, Pa.
Reinhold Belting & Supply Co., Inc. (Leather belting), 444 Atlantic Ave., Brooklyn, N. Y.
Reinhold Noflux Aluminum Solder Co. (Aluminum solder), 31 Clinton St., Newark, N. J.
Reiter Co. (Water softeners), 59 North St., Elgin, Ill.
Reiter, G. C. (Gongs), 1917 Henry Ave., S. W., Canton, O.
Reliable Automatic Sprinkler Co. (Sprinklers), 250-252 W. 27th St., New York, N. Y.
Reliable Cap & Set Screw Co. (Screws), 411-13 S. Clinton St., Chicago, Ill.
Reliable Stove Co. (Division of American Stove Co.), 1825 E. 40th St., Cleveland, O.
Reliance Electric & Engineering Co. (Electric motors), 1088 Ivanhoe Rd., Cleveland, O.; branches in principal cities.
Reliance Engineering Co. (Gas, gasoline engines), Lansing, Mich.
Reliance Gauge Column Co., The (Steam specialties), 5902 Carnegie Ave., Cleveland, O.; 5 S. 18th St., Philadelphia, Pa.
(See index to advertisement, pages 7, 8 and 9.)
Reliance Manufacturing Co. (Gas regulators), 1210 So. Broadway, Pasadena, Cal.
Reliance Mfg. Co., The (Lock washers, nuts, etc.), Massillon, O.; Atlanta, Chicago, Cleveland, Detroit, Kansas City, New York, Philadelphia, San Francisco.
Remick, Timothy & Co., Inc. (Waste), 200 Summer St., Boston, Mass.
Rempe Co. (Iron pipe coils), 341 N. Sacramento Ave., Chicago, Ill.
Renovatol Company, Inc. (Belt treatment), N. W. cor. Mascher and Turner Sts., Philadelphia, Pa.
Rensselaer Valve Co. (Valves), Troy, N. Y.; New York, Pittsburgh, Louisville, Chicago, Seattle.
Republic Brass Co. (Plumbing brass goods), 1623 E 45th St., Cleveland, O.
Republic Flow Meters Co. (Steam meters), 2240 Diversey Blvd., Chicago, Ill.; branches in principal cities.
Republic Iron & Steel Co. (Bolts, nuts, etc.), Republic Bldg., Youngstown, O.; Birmingham, Chicago, New York, Buffalo, Dallas, Cleveland, St. Louis, Cincinnati, Pittsburgh, Philadelphia, Boston, Detroit, San Francisco, New Orleans.
Republic Pipe & Iron Corp. (Pipe couplings), 23-29 Varick Ave., Brooklyn, N. Y.
Republic Rubber Co., The (Mechanical rubber goods), Youngstown, O.
Republic Steel Package Co. (Bundling machines), 7930 Jones Rd., Cleveland, Ohio; branch factory at Richmond, Cal.
Resisto Pipe & Valve Co., The, 262 Bridge St., East Cambridge, Mass.
Resolute Pottery Co. (Vitreous plumbing ware), Trenton, N. J.
Revolvator Co., sales agent for N. Y. Revolving Portable Elevator Co. (Portable elevators), 328 Garfield Ave., Jersey City, N. J.
Rex Engineering Co. (Baling Presses), 501 So. Jefferson St., Chicago.
Rex File Co. (Files), Newcomerstown, O.
Rex Fire Equipment Corp. (Fire extinguishers), 310 West 39th St., New York, N. Y.
Reynolds Bros. (Files and rasps), 180 No. Water St., Columbus, O.
Reynolds Machine Company, The (Screwdriving machines), Massillon, O.
Reznor Mfg. Co. (Gas heaters, etc.), Mercer, Pa.
Rhoades, R. W., Metaline Co., Inc. (Self lubricating bushings), West Ave. and 3rd St., Long Island City, N. Y.
Rhoads, J. E., & Sons, (Leather belting), 35 N. 6th St., Philadelphia, Pa.; 102 Beekman St., New York; 322 W. Randolph St., Chicago.
Rhode Island Fittings Co. (Pipe unions), 233 Park Place, Brooklyn, N. Y.
Rhode Island Humidifier & Vent Co. (Humidifiers), 99 Chauncy St., Boston, Mass.
Rhode Island Tool Co., 156 West Exchange St., Providence, R. I.
Rhode Island Warp Stop Equipment Co. (Countershafts and belt shifters), 248 Pine St., Pawtucket, R. I.; 414 Independence Bldg., Charlotte, N. C.
Rhodes, James H., & Co. (Mechanical felt goods), Rhodes Pl., Long Island City, N. Y.
Rhodes Mfg. Co. (Metalworking mach'y), 984 Park St., Hartford, Conn.
Ric-Wil Company, The (Heat insulating products), 1574 Union Trust Bldg., Cleveland, O.
Rice, Barton & Fales Machine & Iron Co. (Paper and pulp mill machinery), 65 Taintor St., Worcester, Mass.
Rice, Edw. J., Mfg. Co. (Plumbing fittings), 133 Genesee St., Rochester, N. Y.
Rice Improved Valve & Mfg. Co. (Pipe joint cement), Lemcke Bldg., Indianapolis, Ind.
Rice Machine Tool Corp., The (Metal working machinery), 351 6th Ave., Newark, N. J.
Rice Manufacturing Co. (Rivet cutters), 1011 Fletcher Trust Bldg., Indianapolis, Ind.
Rich Manufacturing Company (Gauges, lubricators, etc.), 370 Atlantic Ave., Boston, Mass.
Richards, Benjamin & Co., The (Screws, nuts, washers), Winsted, Conn.
Richards & Co., Inc. (Babbitt metals), Battery Wharf, Boston, Mass.; 81 Fulton St., New York.
Richards, G. Whitfield (Drilling compounds), 1732 Carlton St., Philadelphia, Pa.
Richards Machinery Co. (Drilling machines), 133 W. Water St., Milwaukee, Wis.
Richards Mfg. Co. (Pipe covering), 325 Scribner Ave., Grand Rapids, Mich.
Richards-Wilcox Mfg. Co. (Overhead conveyors, door hangers, etc.), 3rd St., Aurora, Ill.; Boston, Chicago, Cleveland, Indianapolis, Los Angeles, Minneapolis, New York, Philadelphia, San Francisco, St. Louis. (See index to advertisement, pages 7, 8 and 9).
Richardson Co., The (Roofing), Lockland, O.; Melrose Park, Ill.
Richardson, Edro, Brass Co. (Plumbing brass goods), Monument & 11th Sts., Baltimore, Md.
Richardson-Phenix Co., The (Oiling systems), 122 Reservoir Ave., Milwaukee, Wis.; 50 Church St., New York, N. Y.; 2041 E. 3d St., Cleveland, O.
Richardson & Boynton Co. (Heating boilers, etc.), 260 Fifth Ave., New York, N. Y.; 171 West Lake St., Chicago, Ill.
Richardson & Tallman Mfg. Co. (Track tools), Shelbyville, Ill.
Richmond Belt Dressing Mfg. Co., Inc. (Belt dressing), P. O. Box 621, Richmond, Va. (See index to advertisement pages 7, 8 and 9.)
Richmond Engineering Co. (Tanks), 935 Brook Ave., Richmond, Va.
Richmond Foundry & Mfg. Co., Inc., The (Hydrants, stands, brackets, etc.), Hermitage Rd., Richmond, Va.
Richmond Nipple Corp. (Pipe nipples), foot of 22nd St., Richmond, Va.
Richmond Radiator Co., Inc. (Radiators, boilers, enameled plumbing ware), 1480 Broadway, New York, N. Y.
Richmond Screw Anchor Co. (Anchor screws), 245 Bush St., Brooklyn, N. Y.
Richter Brass Co., The (Brass cocks), 1218 W. Liberty St., Cincinnati, O.
Rickersberg Brass Co. (Cocks and valves), Perkins Ave. and E. 37th St., Cleveland, Ohio.
Ric-Wil Co., The (Heat Insulating Products), 1574 Union Trust Bldg., Cleveland, Ohio. (See index to advertisement, pages 7, 8 and 9.)
Rider-Ericsson Engine Corp. (Pumps and engines), 11 Broadway, New York.
Ridgely Trimmer Co. (Blow Torches), Springfield, Ohio.
Ridge Tool Company, The (Vises, wrenches, etc.), P. O. Box 28, Elyria, O.
Ridgway, C., & Son Co. (Elevators), Coatesville, Pa.
Rife Hydraulic Engine Mfg. Co. (Hydraulic engines), 90 West St., New York, N. Y.
Rigid Tool Holder Co. (Machinists tools), Washington, D. C.
Riley Stoker Corporation (Mechanical stokers), 9 Neponset St., Worcester, Mass.
Rinald Bros. Paint Works, Inc. (Paints), Grays Ferry Road and Grove St., Philadelphia, Pa.
Ripley, Lewis R. (Lathes), Harvard, Mass.

Ripley Pipe Wrench Co. (Pipe wrenches), Ripley, N. Y.
Riter-Conley Co. (Steel construction), Oliver Bldg., Pittsburgh, Pa.; New York, Washington, San Francisco, Chicago, Boston, Philadelphia, Seattle, Syracuse, Cleveland, Cincinnati, Detroit.
Ritz Chemical Corp. (Waste pipe cleaners), 25 Division Pl., Newark, N. J.
Riverside Boiler Works, Inc. (Boilers, etc.), 491 Main St., Cambridge, Mass.; New York; Chicago.
Riverside Foundry & Galvanizing (Plumbing specialties), Kalamazoo, Mich.
Riverside Machine Co. (Machines, pipe bending), Chester, Pa.
Riverside Mfg. Co. (Damper regulator), 162 Riverside Ave., Newark, N. J.
Riverside Metal Co. (Metals), Riverside, N. J.
Riverside Mills (Waste), Augusta, Ga.
Rivet Cutting Gun Co. (Slag and rivet cutters), 116 E 3d St., Cincinnati, O.; Chicago; Pittsburgh; Boston; Detroit; New York; Richmond, Va.; Niagara Falls; San Francisco; St. Paul; St. Louis; Montreal; Winnipeg.
Rivett Lathe & Grinder Corp. (Metal working mach'y), 20 Riverview Rd., Brighton District of Boston, Mass.; Detroit.
Robbins, Gamwell & Co. (Wrenches), 68 West St., Pittsfield, Mass.
Robbins Machine Co., The (Lathes), 42 Lagrange St., Worcester, Mass.
Robbins & Myers Co., The (Motors and fans), 1345 Lagonda Ave., Springfield, O.; branches in principal cities.
Roberts Brass Company (Valves), 178 Lincoln Ave., Milwaukee, Wis.
Roberts Brass Mfg. Co., The (Brass fittings), 5401 W. Fort St., Detroit, Mich.
Roberts, Geo. J., Co., The (Electric pumps), 2nd & Canal Sts., Dayton, O.
Roberts Filter Mfg. Co. (Water filters), Darby, Pa.
Roberts-Hamilton Co. (Boilers and furnaces), 713 So. 3rd St., Minneapolis, Minn.
Roberts Mfg. Co. (Bolt clippers), Somerville, Sta. 42, Boston, Mass.
Roberts Portable Oven Co. (Enameling ovens), 853 W. North Ave., Chicago, Ill.
Roberts Safety Water Tube Boiler Co. (Boilers), 102-18 Chestnut St., Red Bank, N. J.
Roberts Steam Specialty Co., The (Water columns, etc.), 5400 St. Clair Ave., Cleveland, O.
Roberts Tube Works (Copper and brass tubing), 2500 Military, Detroit, Mich.
Robertshaw Thermostat Co. (Heating specialties), Youngwood, Pa.; 30 Church St., New York; 15 Charter Oak Pl., Hartford, Conn.; 327 S. La Salle St., Chicago; 1904 Olive St., St. Louis; 126 Russ Bldg., San Francisco.
Robertson, James L., & Sons (Steam specialties), 78-80 Murray St., New York, N. Y.
Robertson, James, Lead Co. (United Lead Co.), 214 W. Henrietta St., Baltimore, Md.
Robertson, John, Co. (Hydraulic presses), 133 Water St., Brooklyn, N. Y.
Robertson, John C., Co. (Valves and extractors), 711 Fulton St., Pittsburgh, Pa.
Robertson Mfg. Co. (Hack saws), 1443-1453 Niagara St., Buffalo, N. Y.
Robertson, W., Machine & Foundry Co. (Hack saws), 56-58 Rano St., Buffalo, N. Y.
Robertson, Wm., & Son (Grease cups), 2012 Larrabee St., Chicago, Ill.
Robins Conveying Belt Co. (Elevating and conveying mach'y), 15 Park Row, New York, N. Y.; Chicago, Pittsburgh, Boston, Philadelphia, El Paso, St Louis.
Robinson Clay Products Co. (Sinks, etc.), 2212 Flushing Ave., Brooklyn, N. Y.
Robinson, D., & Sons (Wiping cloths), 1342 Harper St., Detroit, Mich.; Chicago.
Robinson Fire Apparatus Mfg. Co. (Fire extinguishers), 4268 N. 20th St., St. Louis, Mo. (See index to advertisement, pages 7, 8 and 9.)
Robinson Mfg. Co., The (Pipe hangers, clamps, etc.), 8123 Bruner Ave., S.E., Cleveland, O.
Robinson Mfg. Co. (Flour mill mach'y), Muncy, Pa. Branch Offices or Stores: 415 Western Union Bldg., Chicago, Ill.; 3325 Archwood Ave., Cleveland, Ohio; 459 "L" St. N. E., Minneapolis, Minn.; 267 Elmwood Ave., Buffalo, N. Y.; 117 W. Oak St., Louisville, Ky.; 1320 Healey Bldg., Atlanta, Ga.
Robinson, J. M., Mfg. Co., The (Sheet metal working machines), 3288 Spring Grove Ave., Cincinnati, O.
Robinson, M. W., Co. (Wrenches, tool handles, etc.), 296 Broadway, New York, N. Y.
Robinson Packer Co. (Oil and gas well packers), Tulsa, Okla.; Coffeyville, Kans.
Robinson Tool Works, Inc., The (Filing machines), Baldwin St. and Kelsey Ave., Waterbury, Conn.
Robinson Ventilating Co. (Ventilating fans), Zelienople, Pa.
Robinson, Wm. C., & Son Co. (Lubricants), Caroline and Dock Sts., Baltimore Md.; in principal cities.
Robinson, Wm. V., Co., The (Polishing machines), Owosso, Mich.
Rochester Can Co. (Sheet metal goods), 109 Hague St., Rochester, N. Y.
Rochester Electric Products Corp. (Motors, etc.), 85-89 Allen St., Rochester, N. Y.
Rochester Germicide Co. (Drinking fountains), 16 Dowling Pl., Rochester, N. Y.; Boston, Chicago, New York, Pittsburgh, Cleveland, Cincinnati, St. Paul, Toronto.
Rochester Lead Works (Lead), 380 Exchange St., Rochester, N. Y.
Rochester Machine Screw Co. (Screw machine products, 15 Caledonia Ave., Rochester, N. Y.
Rochester Spray Pump Co. (Spray pumps), 179 Broadway, Rochester, N. Y.
Rochester Vacuum Valve Co. (Vacuum valves, etc.), 29 Edgar St., Rochester, N. Y.
Rochester Woven Belting Corp. (Cotton belting), East Rochester, N. Y.
Rock Island Mfg. Co (Vises), Rock Island, Ill.; 113 Chambers St., New York; 516 Mission St., San Francisco.
Rock River Machine Co. (Punching and shearing machines), Janesville, Wis.
Rockford Bolt Co. (Bolts and washers), Water Power St., Rockford, Ill.
Rockford Brass Works (Brass goods), 710 So. Main St. Rockford, Ill.
Rockford Drilling Machine Co. (Drilling machines), Foot of Catherine St., Rockford Ill.
Rockford Iron Works(Power presses), 648 Race St., Rockford, Ill.
Rockford Lathe & Drill Co. (Lathes), 1827 14th Ave., Rockford, Ill.
Rockford Machine Tool Co. (Metal working mach'y), Kishwaukee St., & 23rd Ave., Rockford, Ill.
Rockford Mfg. Co. (Cotton Twine), Rockford, Tenn.
Rockford Metal Specialty Co. (Countershafts), 624 Cedar St., Rockford, Ill.
Rockford Mitre Box Co. (Boxes, clamps, saws, vises), Talcott Bldg., Rockford, Ill.
Rockford Twist Drill Co. (Drills), 1016 9th St., Rockford, Ill.
Rockport Sanitary Pottery Co. (Sanitary pottery), Rockport, Ind.
Rockwell, W. S., Co. (Blowers), 50 Church St., New York, N. Y.; Ellsworth Bldg., Chicago; Engineers' Bldg., Cleveland; Majestic Bldg., Detroit.
Rockwood Mfg. Co., The (Paper pulleys), 1801-2001 English Ave., Indianapolis, Ind.
Rockwood Sprinkler Co. (Automatic sprinklers), 134 So. La Salle St., Chicago, Ill.
Rockwood Sprinkler Co. of Massachusetts (Combination pressed steel and bronze pipe unions), 34-56 Harlow St., Worcester, Mass.; branches in principal cities.
Roebling's, John A., Sons Co. (Wire rope, etc), South Broad & Canal Sts., Trenton, N. J.; branches in principal cities.
Roeper Crane & Hoist Works, Inc. (Cranes and hoists), 1730 N. 10th St., Reading, Pa.
Roessing Manufacturing Co. (Pipe coils and bends), 1616 Noble St., Pittsburgh, Pa.
Roessler & Hasslacher Chemical Co. (Chemicals), 709 6th Ave., New York.
Rogers Eagle Machine Works (Knife grinders), 16-20 Elk St., Buffalo, N. Y.
Rogers Fibre Co. (Box trucks), 121 Beach St., Boston, Mass.; New York, Philadelphia.
Rogers, F. L. & Co. (Portable electric tools), 23-27 S. Jefferson St., Chicago, Ill.
Rogers Machine Tool Co., Inc. (Turret machines), Alfred, N. Y.
Rogers Metal Works (Babbitt metal), 2123 Jefferson St., Kansas City, Mo.
Rogers, John M., Works, Inc., The (Reamers and milling tools), Gloucester City, N. J.
Rogers, Samuel C., & Co. (Knife grinders), 190 Dutton Ave., Buffalo, N. Y.
Roller Bearing Company of America (Roller bearings), Frelinghuysen Ave. & Hunter St., Newark, N. J.
Roller-Smith Co. (Electrical instruments), 233 Broadway, New York, N. Y.
Rollway Bearing Co., Inc. (Roller bearings), 541 Seymour St., Syracuse, N. Y.
Rollins Engine Co., The (Steam engines), 29 Mason St., Nashua, N. H.
Rome Brass & Copper Co. (Brass and copper goods), Rome, N. Y.; 119 N. Market St., Chicago; 233 Broadway, New York; Wells Fargo Bldg., San Francisco.
Rome Hollow Wire & Tube Co (Tubing), Rome, N. Y.
Rome Mfg. Co. (Brass and copper tubing), Rome, N. Y.; New York; Chicago.
Rome Stove & Range Co. (Laundry stoves), Rome, Ga.
Romort Mfg. Co. (Garage appliances), Oakfield, Wis.; 1323 Mich. Ave., Chicago, Ill.
Ronan Saw & Tool Works (Hack saws), 351 Davey St., Buffalo, N. Y.

Rooksby, E. J., & Co. (Boring bars), 435 No. 11th St., Philadelphia, Pa.
Roosevelt Mfg. Co. (Wrenches), 53 W. Jackson Blvd., Chicago, Ill.
Root, B. M., Co. (Woodworking mach'y), Sherman St. near Prospect, York, Pa.
Root Co., The (Revolution counters), Church St. extension, Bristol, Conn.
Roots, P. H. & F. M., Co. (Pumps), Connersville, Ind.; 120 Liberty St., New York; 432 Peoples Gas Bldg., Chicago, Ill.
Roovers Bros. (Embossing presses), 100 Schermerhorn St., Brooklyn, N. Y.
Rope Fire Escape Co. (Fire escapes), 1628 Market St., Philadelphia, Pa.
Roper, Geo. D., Corp. (Pumps), 707 S. Main St., Rockford, Ill. (See index to advertisement, pages 7, 8 and 9.)
Rose, Frank, Mfg. Co. (Auto accessories), Hastings, Neb.
Rose, J. A., Mfg. Co. (Washer cutters), 105 So. Kansas Ave., Hastings, Neb.
Rose Mfg. Co. (Garage heaters), 37th and Filbert Sts., Philadelphia, Pa.
Rosedale Foundry & Machine Co. (Mechanical stokers, flue cleaners, etc.), Columbus & Preble Sts. North Side, Pittsburgh, Pa.
Ross Carrier Co., The (Lumber trucks), Benton Harbor, Mich.
Ross Galvanizing Corp. (Metal cleaners), 244 Eagle St., Brooklyn, N. Y.
Ross Heater & Mfg. Co., Inc. (Feed water heaters), 1407 West Ave., Buffalo, N. Y.
Ross Mfg. Co., The (Feed water heaters), Northville, Mich.
Ross Mfg. Co., The (Pumps), 2196 Clarkwood Rd., Cleveland, O.
Ross Operating Valve Co., 6488 Epworth St., Detroit, Mich.
Ross Valve Mfg. Co., Inc. (Steam and hydraulic specialties), Oakwood Ave., Troy, N. Y.
Ross & Gade Co., Inc. (Plumbing brass goods), 509 W. 45th St., New York, N. Y.
Rossendale-Reddaway Belting & Hose Co., The (Belting, etc.), Euclid Ave., Newark, N. J.; branches in principal cities.
Rotary Mfg. Co. (Water heaters), 1526 Santa Fe Ave., Los Angeles, Cal.
Rotary Oil Burner Corp. (Oil burners), 6451 Sheridan Rd., Chicago, Ill.
Roth Bros. & Co. (Electric motors), 1400 W. Adams St., Chicago, Ill.
Roto Co., The (Boiler tube cleaners), 74 Union Place, Hartford, Conn.
Round, David, & Son (Chain hoists), Stop 2, A. B. C. R. R., Cleveland, O.
Rowbottom Machine Co., Inc.(Mach'y) Sheffield St., Waterville), Waterbury, Conn.
Rowe, A. C., & Son (Buckets, hose and cans), 78 Reade St., New York.
Rowe, Henry, Mfg. Co. (Wooden handles), Newaygo, Mich.
Rowe Mfg. Co. (Sack balers), Galesburg, Ill.
Rowell Mfg. Co. (Car movers, melting ladles, etc.), Appleton, Wis. (See index to advertisement, pages 7, 8 and 9.)
Royal Brass Mfg. Co., The (Brass goods), 1418 E. 43rd St., Cleveland, O.
Royal Mfg. Co. (Cotton and wool waste) 30 East Grand St., Rahway, N. J.; 321 E. Grand Ave., Chicago; Bomar Bldg., Spartanburg, S. C.; 200 Summer St., Boston.
Royal Metal Mfg. Co. (Factory chairs), 1138 So. Michigan Ave., Chicago, Ill.
Royersford Foundry & Machine Co. (Power transmission appliances), Royersford, Pa. (See index to advertisement, pages 7, 8 and 9.)
Rubberwear Glove Co., The (Industrial workers' gloves), Akron, O.
Ruberoid Co., The (Roofing cement), 95 Madison Ave., New York, N. Y.; Boston; Chicago.
Ruboil Belting Co. (Cotton belting), Colonial Trust Bldg., Philadelphia, Pa; Boston, Chicago.
Ruby Chemical Co., The (Soldering flux), 68-70 McDowell St., Columbus, O.
Rudisill Soil Pipe Co. (Cast iron soil pipe and fittings), Anniston, Ala. (Gulf States Pipe Corp., Anniston, Ala., exclusive sales agents.)
Rue Mfg. Co. (Injectors and ejectors), 228 Cherry St., Philadelphia, Pa.
Rueckert, C., & Company (Blow torches, etc.), 2006 Larrabee St., Chicago, Ill.
Ruenelin Mfg. Co. (Sand blasts), 607 5th Ave., Minneapolis, Minn.
Rugg, E. T., & Co. (Rope), Newark, O.
Ruggles-Coles Engineering Co. (Cement dryers), 120 Broadway, New York; Newhouse Bldg., Salt Lake City.
Ruggles-Klingemann Mfg. Co. (Steam specialties), Foster Court, Salem, Mass.; 200 Devonshire St., Boston, Mass.
Rumsey Pump Co., Ltd. (Pumps, etc.), Seneca Falls, N. Y.; branches in principal cities.
Rumsey, W., Co., The (Waste), Romeo, Mich.
Rundle Mfg. Co. (Sanitary plumbers' ware and fittings), 27th Ave., Milwaukee, Wis.
Rundle-Spence Mfg. Co. (Plumbing goods), 55-75 Fourth St., Milwaukee, Wis.
Rural Electric Equipment Co., Canton, Pa.
Rural Septic Systems Co. (Sewage disposal tanks), 7th floor, Indiana Pythian Bldg., Indianapolis, Ind.
Russ Manufacturing Co. (Welding apparatus, 5700 Walworth Ave. S. W., Cleveland.
Russell Appliance Co., Box 1032, Springfield, Mass.
Russell, Burdsall & Ward Bolt & Nut Co. (Bolts, nuts and steel washers), Port Chester, N. Y.
Russell Electric Co. (Glue pots, etc.), 340 W. Huron St., Chicago, Ill.
Russell, John M., Mfg. Co., Inc. (Plumbing specialties), Naugatuck, Conn.
Russell Water Softener Co. (Water softeners), 150 West 61st St., Chicago, Ill.
Russell Mfg. Co., The (Cotton webbing, belting, etc.), Middletown, Conn.; New York, Chicago, Detroit, Atlanta.
Russell Mfg. Co., The (Taps, dies, plates) Greenfield, Mass.
Russell, W. A. & Co. (Steam specialties), 5037 Grand Central Terminal Bldg., New York, N. Y.; Chicago, Boston, St. Louis.
Russell & Co., The (Threshing machines), Massillon, O.
Russell & Erwin Mfg. Co. of N. Y. (Hardware), 96 Lafayette St., New York, N. Y.
Russia Cement Co. (Glue, oil, belt cement and dressing), Gloucester, Mass.
Rust Products Co. of America (Rust remover), 808 W. Washington Blvd., Chicago.
Rusticide Co., The (Rust remover), 412 Frankfort Ave., Cleveland, O.
Rustless Rule Co., Inc. (Rules), 9 Lafayette Ave., Buffalo, N. Y.
Rutland Fire Clay Co. (Pipe joint cement), Rutland, Vt.
Rutzler, E., Co. (Steam specialties), 404 E. 49th St., New York, N. Y.
Ruud Mfg. Co. (Water heaters), 29th & Smallman Sts., Pittsburgh, Pa.
Ryan, B., & Company (Water heater thermostats), 366-72 West 15th St., New York.
Ryan, E J., & Co. (Heating specialties), 117 Walnut St., Danville, Ill.
Ryan, J. J., & Co. (Brass, valves, etc.), 104 S. Jefferson St., Chicago, Ill.
Ryan, Scully & Co. (Gas furnaces), Wesley Bldg., Philadelphia, Pa.
Ryan & Fitzpatrick Co., Inc. (Wrenches and ferrules), 424 River St., Troy, N. Y.
Ryan & Long (Automobile washers), Appleton, Wis.

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S. E. T. Valve & Hydrant Co. (Valves, etc.), 50 Church St., New York, N. Y.
S. K. F. Industries, Inc. (Ball bearings, hangers, etc.), 165 Broadway, New York; Atlanta; Boston; Buffalo; Chicago; Cleveland; Detroit; Philadelphia; San Francisco.
Saal, H. G., Co. (Oil guns), 1801 Montrose Ave., Chicago, Ill.
Sabin, Frederick, & Co., Inc. (Fuel economizers), 237 No. Bread St., Philadelphia, Pa.
Sabin Machine Co., The (Barrel trucks), 6536 Carnegie Ave., Cleveland, O.
Sacket Foundry Company (Closet fittings), 1700 E. 9th St., Los Angeles, Cal.
Sackett, H. B., Screen & Chute Co. (Industrial railways, etc.), 1685 Elston Ave., Chicago, Ill.; 195 Medford St., Charlestown, Mass.
Sacramento Pipe Works (Pipe and fittings), 716-722 R St., Sacramento, Cal.
Safety Equipment Service Co. (Workers' protective clothing, etc.), 1228 St. Clair Ave., Cleveland, O.
Safety Fire Extinguisher Co. (Fire extinguishers), 291 Seventh Ave., New York, N. Y.
Safety First Shoe Co. (Foundrymen's shoes), 184 Summer St., Boston, Mass.
Safety Handle Co. (File handles), 925 E. Scotts Ave., Stockton, Cal.
Safety Stair Tread Co., The (Stair treads), Wooster, Ohio.
Safety Truck Brake Co. (Hand truck brakes), Appleton, Wis.
Safety Water Heater Co. (Water heaters), 2234 Fullerton Ave., Chicago, Ill.
Safety Wrench & Appliance Co. (Wrenches), 360 Worthington St., Springfield, Mass.
Saginaw Mfg. Co. (Wood pulleys), 122 King St., Saginaw, Mich. (See index to advertisement, pages 7, 8 and 9.)
Saginaw Mirror Works (Glass shelves and mirrors), 520 So. Hamilton St., Saginaw, Mich.
Saginaw Stamping & Tool Co. (Truck casters and hand trucks), Saginaw, Mich.

St. Louis Brass Mfg. Co. (Lighting fixtures), 2615 Washington Ave., St. Louis, Mo.
St. Louis Candle & Wax Co. (Plumbers' candles), 208 So. Main St., St. Louis, Mo.
St. Louis Malleable Casting Co. (Washers, etc.), 7701 N. Conduit, St. Louis, Mo.
St. Louis Screw Co. (Screws, bolts, taps, etc.), 6900 N. Broadway, St. Louis, Mo.
St. Louis Truck & Mfg. Co. (Factory trucks), 3200 N. Hall St., St. Louis, Mo.
St. Paul Machinery Mfg. Co. (Woodworking machinery), Como Ave. and Marion St., St. Paul, Minn.
St. Paul Welding & Mfg. Co. (Welding equipment), 174 W. 3rd St., St. Paul, Minn.
Salamander Grate Bar Co. (Grates), 39 Cortlandt St., New York, N. Y.
Salem Brass & Iron Mfg. Co. (Sinks, soil pipe and fittings), Bridgeton, N. J.
Salem Tool Co., The (Augers and drills), Salem, O.
Sales, Murray W., & Co. (Pipe coils and bends), 801 W. Baltimore St., Detroit, Mich.
Salisbury, W. H., & Co., Inc. (Leather belting and rubber goods), 308-310 W. Madison St., Chicago; Tulsa, Okla.
Sall Mountain Co. (Asbestos goods), 140 S. Dearborn St., Chicago, Ill.; 268 State St., Boston; 141 W. 20th St., New York; Scranton, Pa.
Salter Edge Tool Co. (Machine knives), 319 Straight Ave., S. W., Grand Rapids, Mich.
Samoline Corp. (Metal polish, etc.), 1300 Fletcher St., Chicago, Ill.
Samson Cordage Works (Cords and twines), 88 Broad St., Boston 9, Mass.
San Antonio Machine & Supply Co. (Engines and mach'y), San Antonio, Texas; Corpus Christi, Texas; Waco, Texas.
San Francisco Engineering Co. (Pipe cutting and threading machines, etc.), 322-324 Sixth St., San Francisco, Cal.
Sanborn Furnace Co. (Heating boilers, etc.), Methuen, Mass.
Sanderson-Cyclone Drill Co. (Drills), Orrville, Ohio.
Sandoval Zinc Co. (Metals), 410 N. Peoria St., Chicago, Ill.
Sands Mfg. Co., The (Die stocks), 5305 Sweeney Ave., Cleveland, O.
Sandusky Foundry & Machine Co., The (Steam and power pumps), Market and Fulton Sts., Sandusky, O.
Sandusky Tool Corporation (Carpenters' tools), 146 Meigs St., Sandusky, O.
Sandvik Steel, Inc. (Steel belt conveyors), 233 Broadway, New York, N. Y.
Sanford-Day Iron Works (Mining equipment), Knoxville, Tenn.
Sanford, F. C., Mfg. Co. (Welding apparatus), 2069 Fairfield Ave., Bridgeport, Conn.
Sani-Products Co. (Bathroom fittings), 209 W. Randolph St., Chicago, Ill.
Sanitary Appliance Co. (Sewage disposal equipment), 308 Hughes St., Houston, Tex.
Sanitary Bath Curtain Mfg. Co., 132 West 14th St., New York, N. Y.
Sanitary Company of America (Iron plumbing specialties), Linfield, Pa.
Sanitary Earthenware Specialty Co. (Vitreous water closets and tanks), Trenton, N. J.
Sanitary Engineering Co., The (Septic tanks), Union Trust Bldg., Pittsburgh, Pa.
Sanitary Fibre Products Co. (Bath seats), 1725 W. North Ave., Chicago, Ill.
Sanitary Mechanical Specialty Co. (Sewage ejectors), 155 E. 75th St., New York, N. Y.
Sanitary Products Co. (Vitreous plumbing goods), Perrysville, O.
Sanitary Specialties Co. (Bathroom specialties), N. E. Cor. Hazzard & Collins Sts., Philadelphia, Pa.
Sanitary-Washed Wiper Co., The (Machine wipers), 813-15 So. Delaware St., Indianapolis, Ind.
Sanitas Mfg. Co. (Plumbing specialties), 105 Washington St., Boston, Mass.
Sanymetal Products Co., The (Steel partitions), Urbana Rd. & N. P. Tracks, Cleveland, O.
Saphill Electric Tool Co. (Electric drills), Galesburg, Ill.
Saranac Machine Co. (Woodworking mach'y), Benton Harbor, Mich.
Sarco Co., Inc. (Steam specialties), 183 Madison Ave., New York, N. Y.; Monadnock Blk., Chicago; Ford Bldg., Detroit; Drexel Bldg., Philadelphia; 325 Ellicott Sq., Buffalo, N. Y.; Fidelity Mortgage Bldg., Cleveland, O.; 110 High St., Boston. (See index to advertisement, pages 7, 8 and 9.)
Sargent Company (Water gauges and protectors), 625 W. Jackson Blvd., Chicago, Ill.
Sargent & Co. (Small tools) Water & Wallace Sts., New Haven, Conn.
Sasgen Derrick Co. (Derricks), 3101-3119 W. Grand Ave., Chicago, Ill.
Sauerman Bros. (Excavating mach.), 438 So. Clinton St., Chicago, Ill.
Saunders', D., Sons, Inc. (Pipe threading mach'y), 25 Atherton, Yonkers, N. Y.
Savage Expansion Bolt Corp. (Expansion shields), 9 Desbrosses St., New York.
Savage, W. J., Co. (Metal cutting shears), Knoxville, Tenn.
Savill's, Thos., Sons (Hydrants, etc.), 1310 Wallace St., Philadelphia, Pa.
Savo Mfg. Co. (Air moisteners), 111 W. Monroe St., Chicago, Ill.
Savory, Inc. (Ventilating Sets), 90 Alabama St., Buffalo, N. Y.
Sav-U-Time (Lighters, gas, water heater), 88 Manhattan St., Rochester, N. Y.
Sawyer Belt Hook Co. (Belt hooks), 16 Warren Ave., Pawtucket, R. I.
Sawyer Gear & Mfg. Co. (Gears and pinions), 5122 St. Clair Ave., Cleveland, O.
Sayre, L. A., Company (Small tools), 334 Mulberry St., Newark, N. J.
Scaife, Wm. B., & Sons Co. (Tanks, boilers, etc.), First National Bank Bldg., Pittsburgh, Pa.; 26 Cortlandt St., New York; 38 S. Dearborn St., Chicago, Ill.
Scandinavia Belting Co. (Cotton belting), 226 High St., Newark, N. J.; 170 Summer St., Boston; 1434 W. 3d St., Cleveland; Boston Bldg., Denver; 11-15 Fremont St., San Francisco, Cal.; 611 W. Adams St., Chicago.
Scandinavian Western Importing Co., Ltd. (Tools, etc.), 107-109 Lafayette St., New York, N. Y. (See index to advertisement, pages 7, 8 and 9.)
Scanlan Handy Heater Co. (Electric water heaters), 720 E. Empire St., Bloomington, Ill.
Scannell Boiler Works (Boilers, etc.), 28 Tanner St., Lowell, Mass.
Scarbrough Manufacturing Co. (Sawmill and woodworking mach'y.), 24-32 W. 13th St., Chattanooga, Tenn.
Schacht Rubber Mfg. Co. (Packing, washers, etc.), Huntington, Ind.
Schade Valve Mfg. Co. (Valves, etc.), 2531 N. Bodine St., Philadelphia, Pa.
Schaefer & Beyer (Blow torches), 52 Bragaw Ave., Newark, N. J.
Schaeffer Bros. & Powell Mfg. Co. (Oils and greases), 102 Barton St., St. Louis, Mo.; Chicago, Ill.
Schaffer, Chas. W., Co., The (Plumbing supplies), 3214 Chestnut St., Philadelphia, Pa.
Schapiro, S. & Sons (Wiping cloths), 1022-24 Fawn St., Baltimore, Md.
Schatz Mfg. Co., The (Punching and shearing mach'y), 23 Fairview Ave., Poughkeepsie, N. Y.
Scheeline Mfg. Co. (Electric radiators, etc.), 76 Tehama St., San Francisco, Cal.
Scheinman-Neaman Co. (Wiping cloths), 1024 Vickroy St., Pittsburgh, Pa.
Schellenbach-Hunt Tool Co., The (Reamers, etc.), 116-124 Opera Place, Cincinnati, O.
Schenck Mfg. & Supply Co. (Gas engines, pumps, etc.), Parkers Landing, Pa.
Schieren, Chas. A., Co. (Leather belting), 42 Ferry St., New York, N. Y.; 116 W. Illinois St., Chicago; 247 Atlantic Ave., Boston; 226 N. Third St., Philadelphia; 122 Shore St., Petersburg, Va.; 337 Second Ave., Pittsburgh; 1752 Arapahoe St., Denver; 305 First Ave., South, Seattle; The Texas Chas. A. Schieren Co., Inc., 205 S. Market St., Dallas, Tex.; 404-406 Canal St., New Orleans; Oak Leather Tanneries, Bristol, Tenn.
Schild Specialty Co. (Traps), 111-115 High Ave., Cleveland, O.
Schiller, Joseph F. (blow-off valves), 316 S. Lawrence St., Philadelphia, Pa.
Schlangen Bros. Co. (Hose fittings), 2435 Irving Park Blvd., Chicago, Ill.
Schleicher, Inc. (Radiator covers), 310 S. Michigan Blvd., Chicago, Ill.
Schlichter Jute Cordage Co., The (Cordage), Erie & Trenton Aves., Philadelphia, Pa.
Schoder & Lombard Stamp & Die Co., Inc. (Steel stamps), 202 Centre St., New York, N. Y.
Schofield's, J. S., Sons Co. (Engines, boilers, etc.), Macon, Ga.
Scholler Mfg. Co., Inc. (Adjustable wrenches), 147 Leslie St., Buffalo, N. Y.; 150-152 Chambers St., New York, N. Y.
Schollhorn, Wm., Co., The (Pliers, nippers, punches), New Haven, Conn.
Schrader's, A., Sons, Inc. (Hose fittings), 470 Vanderbilt Ave., Brooklyn, N. Y.; 1516 S. Wabash Ave., Chicago; 334 King St., E., Toronto.
Schramm, Inc. (Rock drills), West Chester, Pa.; New York, Chicago, Philadelphia.
Schriver Iron Works, Inc. (Grates), Maryville, Tenn.
Schubert, C. A. (Irrigation sprinklers), Douglaston, L. I., N. Y.
Schulte Brass Mfg. Co. (Plumbing brass goods), 2781 Highland Ave., Cincinnati, O.

Schultz, A. L., & Son (Friction clutch pulleys, etc.), 1675-77 Elston Ave., Chicago, Ill.
Schutte & Koerting Co. (Power plant specialties), 12th and Thompson Sts., Philadelphia, Pa.; Boston; New York; Chicago.
Schwab, R. J. & Sons Co. (Heating boilers), 283 Clinton St., Milwaukee, Wis.
Schwander Brass Mfg. Co. (Brass goods), 1624-28 Morgan St., St. Louis, Mo.
Schwartz Belting Co., 74-76 Murray St., New York, N. Y.
Schweizer, Chas. K., Co. (Steel stamps), 207 Vine St., St. Louis, Mo.
Schwerdtle Stamp Co., The (Steel stamps), 41 Cannon St., Bridgeport, Conn.
Scientific Heater Co., The (Gas heating boilers), 2104 Superior Viaduct, N. W., Cleveland, O.
Scientific Instrument Co. (Oil burners), 535 W. Larned St., Detroit, Mich.
Scientific Materials Co. (Scientific instruments), 717 Forbes St., Pittsburgh, Pa.
Scientific Utilities Co. (Calorimeters), 18 E. 16th St., New York, N. Y.
Scott, C. U., & Son (Furnaces), 1510 1st Ave., Rock Island, Ill.
Scott Spencer Automatic Tool Co. (Screw machine tools), 4607 Eastern Ave., Cincinnati, O.
Scott Valve Mfg. Co. (Valves), McKinley Ave. and G. T. R. R., Detroit, Mich.; 310 W. Randolph St., Chicago, Ill.
Scovill Mfg. Co. (Brass and copper), Waterbury, Conn.; Boston; Chicago; Cleveland; Detroit; New York; Philadelphia; Rochester.
Scranton Bolt & Nut Co. (Bolts, etc.), Poplar & Ward Sts., Scranton, Pa.; 120 Broadway, New York City.
Scranton Electric Construction Co. (Mining drills), 625-629 Connell Bldg., Scranton, Pa.
Scranton Pump Co., The (Steam pumps, blowers, etc.), Meylert Ave. & Marion St., Scranton, Pa.
Scripps Motor Car Co. (Gas engines), 5817 Lincoln Ave., Detroit, Mich.
Scully-Jones & Co. (Milling spacers and tap chucks), 3609 S. Ashland Ave., Chicago, Ill.
Sculiy Steel & Iron Co. (Boilermakers' supplies), Box 814, 2364 So. Ashland Ave., Chicago, Ill.
Seaboldt, B., Corp., The (Thread inspection apparatus), 305 Broadway, New York.
Seamless Steel Products Co. (Tanks and cans), 27th and Canal, Milwaukee, Wis.
Searls Mfg. Co. (Bathroom fittings), 29 Mulberry St., Newark, N. J.
Seattle Brass Co. (Plumbers' brass goods), 7th Ave., S., and Andover St., Seattle, Wash.
Seattle Laundry Tray Co. (Laundry trays), 1547 Westlake Ave., Seattle, Wash.
Seaverns, James B., Co. (Portable conveyor), 1315 S. Oakley Ave., Chicago, Ill.
Sebastian Lathe Co. (Lathes), 3rd & Philadelphia Sts., Covington, Ky.
Security Insert Co. (Concrete inserts), 2016 N. Hope St., Philadelphia, Pa.
Security Rubber & Belting Co. (Rubber belting), 2837 So. La Salle St., Chicago, Ill.
Sedgley, R. F., Inc. (Wrenches), 2311-15 N. 16th St., Philadelphia, Pa.
Seehausen, Wehrs & Co. (Flue cleaners), 566 W. Randolph St., Chicago, Ill.
Seibert, Louis L., & Co. (Saw mill machinery), 1629 Dana Ave., Cincinnati, O.
Seidel, R. B., Inc. (Crucibles), 1322 Callowhill St., Philadelphia, Pa.
Selas Co. (Gas lighting equipment), 940 No. Front St., Philadelphia, Pa.
Self-Cleaning Strainer Co. (Pump strainers), 5125 So. Carpenter St., Chicago, Ill.
Self Propelling Nozzle Co. (Sewer cleaning nozzles), 99 Water St., New York.
Sellers, Wm., & Co., Inc. (Metal working mach'y.), 1600 Hamilton St., Station J, Philadelphia, Pa.
Sellew Machine Tool Co. (Vises), 28 Bayley St., Pawtucket, R. I.
Semet-Solvay Co. (Paints, calcium chloride), Syracuse, N. Y.; New York; Chicago; Boston.
Semmelmeyer Belting Co. (Leather belting), 720 No. 2nd St., St. Louis, Mo.
Seneca Falls Machine Co. (Lathes), Seneca Falls, N. Y.
Seneca Wire & Mfg. Co. (Wire), Fostoria, Ohio.
Senn, E. R., & Co. (Belt dressing), 99 13th St., Brooklyn; Chicago.
Sero Specialty Co. (Belt dressings), 2860 E. 84th St., Cleveland, O.
Service Caster & Truck Co. (Truck casters), Albion, Mich.
Servus Rescue Equipment Co., 69 Warren St., Newark, N. J.
Service Tool Corporation (Files), Latrobe, Pa.
Sesure Water Gauge Co. (Water gauges), 2 Rector St., New York, N. Y.
Severance, S., Mfg. Co. (Spikes and rivets), Glassport, Pa.
Sexauer, J. A., Mfg. Co. (Plumbing and heating specialties), 2503 Third Ave., New York.
Sexton Can Co. (Sheet metal specialties), 31 Cross St., Everett Station, Boston, Mass.
Sexton, S. B., Stove & Mfg. Co. (Laundry heaters), 501 W. Conway St., Baltimore, Md.
Seymour, James M., (Fans), 51-53 Lawrence St., Newark, N. J.
Seymour Mfg. Co., The (Non-ferrous rods, sheets, tubes, etc.), Seymour, Conn.
Shackley, W. T., & Son Co. (Leather belting), 521 Atlantic Ave., Boston, Mass.
Shafer-Decker Co. (Commutator grinders), 484 Clinton Ave., So., Rochester, N. Y.
Shakeproof Lock Washer Co. (Lock Washers), 2501 No. Keeler Ave., Chicago, Ill.
Shaler, C. A., Co. (Vulcanizers), Waupun, Wis.; 17 Moore St., New York.
Shanafelt Mfg. Co., The (Patterns and Plates), 1228 4th Ave., S. W., Canton, O.; 537 So. Dearborn St., Chicago, Ill.
Shanklin Mfg. Co. (Miners' lamps); Springfield, Ill.
Shannon, J. Jacob & Co. (Hoisting apparatus), 1744 Market St., Philadelphia, Pa.
Shannon Mfg. Co. (Garbage burners), 224 W. 26th St., New York, N. Y.
Sharon, R. W., Co. (Expansion joints), 8060 Jenkins Arcade, Pittsburgh, Pa.
Sharp Rotary Ash Receiver Corp. (Ash cans), 396 Bridge St., Springfield, Mass.
Shartle, C. W., Jr. (Shaft collars), Middletown, O.
Shaw, Benjamin F., Co. (Pipe and fittings), 2nd & Lombard Sts., Wilmington, Del.
Shaw Kendall Engineering Co., The (Pipe fittings), S. Superior St., Toledo, O.
Shaw, Welsh & Co. (Baling presses), Galesburg, Ill.
Shawinigan Products Co. (Calcium carbide), 110 William St., New York, N. Y.
Shawmut Chemical Co. (Boiler preservative), 148 Pearl St., Boston, Mass.
Shawmut Iron & Wire Works (Lockers, bins, etc.), 97 Tileston St., Everett, Mass.
Shawver Co., The (Woodworking mach'y), 23 W. Pleasant St., Springfield, O.
Sheak Filter Co., The (Water filters), Binghamton, N. Y.
Shear-Klean Grate Co. (Shaking grates, etc.), 53 W. Jackson Blvd., Chicago, Ill.
Sheer Bros. Fence & Iron Co. (Fire escapes), 715 E. 103rd St., Cleveland, O.
Shelby Spring Hinge Co. (Toilet paper holders), Shelby, O.
Sheldon, E. H., Mfg., Co. (Woodworkers' clamps), Getty Ave., Muskegon, Mich.
Sheldon Machine Co. (Tapping and threading machines), 401 E. 29th St., Chicago, Ill.
Shepard Electric Crane & Hoist Co. (Hoisting apparatus), Montour Falls, N. Y.; New York; Philadelphia; Pittsburgh; Chicago.
Shepard Lathe Co. (Lathes), Rising Sun, Ind.
Shepherd Engineering Co., The (Steam engines), Williamsport, Pa.
Sheppard Leather Belting Co., Inc., (Leather belting), 312 No. 3rd St., Philadelphia, Pa.
Shere Metal Products Corp. (Guns, grease), 5832 Marshall St., Oakland, Calif.
Sheridan Gas Burner Co. (Gas burners), 6914 Wade Park, Cleveland, O.
Sherman, H. B., Mfg. Co. (Hose and brass goods), Battle Creek, Mich. (See index to advertisement, pages 7, 8 and 9.)
Sherman-Klove Co., The (Nuts), 4640-48 W. Harrison St., Chicago, Ill.
Sherman Oil Burner System, Inc. (Fuel oil burners), 554 Main St., Worcester, Mass.
Sher-White Enamel Corp. (Laundry tray covers), East Stroudsburg, Pa.
Sherwood Brass Works (Plumbing brass goods), 6331 E. Jefferson Ave., Detroit, Mich.
Sherwood Mfg. Co. (Engine room specialties), 1702-1712 Elmwood Ave., Buffalo, N. Y.; 220 Broadway, New York, N. Y. 136 Chestnut St., Philadelphia, Pa.
(See Index to advertisements, pages 7, 8 and 9.)
Shields, H. (Sink fittings), Fort Dodge, Iowa.
Shilvock Company (Plumbing supplies), 2020 North Laramie Ave., Chicago, Ill.
Shimer, Samuel J., & Sons (Woodworking specialties), Milton, Pa.
Shingle-Gibb Leather Co. (Leather for belting and specialty Mfrs.), 54th and Gray's Ave., Philadelphia, Pa.; 549 W. Washington St., Chicago, Ill. (See index to advertisement, pages 7, 8 and 9).
Shipp C. C., & Co. (Ventilating and humidifying spec.), 230 E. Ohio St., Indianapolis, Ind.
Sholes, Incorporated (Chemical Equipment), 186 Lafayette St., New York, N. Y.
Shonberg, I., Inc. (Solder), 122 Flushing Ave., Brooklyn, N. Y.; Cleveland, O.; New Orleans; Baltimore; Norfolk, Va.
Shore Instrument & Mfg. Co. (Hardness testing instruments, etc.), Van Wyck Ave., Jamaica, N. Y.

Shortridge, Edwin G., & Co. (Saw swages), 615 S. Armstrong St., Kokomo, Ind.
Shriver, T., & Co. (Presses, etc.), Harrison, N. J.
Shunk, H. A., Inc. (Reamers), 437 W. 42d St., New York, N. Y.
Shuster, F. B., Co., The (Metal working mach'y), State & Mill River, New Haven, Conn.
Shwab Bros. Co. (Plumbers' woodwork), 510 E. 72nd St., New York, N. Y.
Sibley Machine Company (Drilling machines), 206-24 E. Tutt St., South Bend, Ind. See index to advertisement, pages 7, 8 and 9.
Sidney Machine Tool Co., The (Woodworking mach'y. and lathes), Sidney, O. (See index to advertisement, pages 7, 8 and 9.)
Sidney Steel Scraper Co., The (Contractors' equipment), Sidney, O.
Sieverkropp Engine Co., The (Gas engines), De Koven St. & N. W. Tracks, Racine, Wis.
Sigourney Tool Co., The (Drills), 9 Sigourney St., Hartford, Conn.
Sikes, S. R., Co. (Leather belting), Corner 11th Ave., So., and 3rd St., Minneapolis, Minn.; 824 Union St., New Orleans, La.; 30 S. Jefferson St., Chicago.
Silent Hoist Winch & Crane Co., The (Hoists, cranes and car movers), 302 McDougal St., New York, N. Y.
Sill Stove Works. (Water heaters), Rochester, N. Y.
Sillcocks-Miller Co., The (Tanks and seats), South Orange, N. J.
Silver Lake Co. (Small rope), Newtonville, Mass.
Silver Mfg. Co. (Drills, saws, etc.), 317 Broadway, Salem, O.
Silver & Co.(Bathroom furnishings), 304 Hewes St., St., Brooklyn, N. Y.
Silvers Mfg. Co. (Water closets, etc.), Waterloo, Iowa.
Simmons Economy Tool Corp. (Tool holders), Albany, N. Y.
Simmons, H. C., Sons Co. (Heating boilers, etc.), North Bennington, Vt.
Simmons, John, Co. (Pipe fittings), 104-10 Center St., New York; Newark, N. J.; Long Island City, N. Y.
Simmons Machine Co., Inc. (Grinding machines), Troy Rd., Albany, N. Y.; New York City; 358 Ellicott Sq., Buffalo, N. Y.
Simmons Pipe Bending Works (Pipe bends and coils), 40 Mechanic St., Newark, N. J.
Simmons, W. H., & Co. (Upright drills), 208 Lawrence St., Cincinnati, O.
Simonds, A. A., -Dayton Co., The (Machine knives and grinding wheels), Dayton, O.
Simonds Saw & Steel Co. (Saws), Fitchburg, Mass.; Chicago; New York; Portland; Lockport, N. Y.; New Orleans; San Francisco; Seattle; Memphis; Detroit; Montreal.
Simonds Mfg. Co., The (Gears and pinions), Liberty and 25th Sts., Pittsburgh, Pa.
Simoniz Co., The (Rust solvent), 2116 Indiana Ave., Chicago, Ill.
Simons Paint Spray Brush Co. (Painting machines), 17 Maryland Ave., Dayton, O.
Simplex Boiler Co. (Range boiler stands, etc.), 268 Hall St., Brooklyn, N. Y.
Simplex Boiler Co. (Gas Boilers), Oliver Bldg., Pittsburgh, Pa.
Simplex Ejector Co. (Sewage ejectors), 2528 West Madison St., Chicago, Ill.; 912 Madison Ave., Paterson, N. J.
Simplex Electric Heating Co., The (Electric soldering irons), 85 Sidney St., Cambridge, Mass.; 15 S. Desplaines St., Chicago.
Simplex Gas Heater Control Co. (Gas heater regulators), 46 W. 4th St., St. Paul, Minn.
Simplex Heating Specialty Co. (Radiator valves), Lynchburg, Va.
Simplex Manufacturing Co. (Leather washers), 10-12 Garden St., Auburn, N. Y.
Simplex Mfg. Co. (Roof flanges), 213 W. Austin Ave., Chicago, Ill.
Simplex Pump Co. (House pumps), Bristol, Ind.
Simplex Spray Equipment Co. (Spraying equipment), 552-554 W. Lake St., Chicago, Ill.
Simplex Time Recorder Co. (Time recorders), Gardner, Mass.
Simplex Tool Co. (Bench plates), Worrall St., Woonsocket, R. I.
Simplex Valve & Meter Co. (Valves and meters, 68th and Upland Sts., Philadelphia, Pa.
Simplex Wire & Cable Co. (Electric tool cord), 201 Devonshire St., Boston 9, Mass.; Chicago; New York; San Francisco.
Sims Co., The (Feed water heaters, etc.), 19th & Whitley Sts., Erie, Pa. Agencies in principal cities.
Sims Specialty Mfg. Co. (Roof flanges), 4044 E. 14th St., Des Moines, Iowa.
Sinclair-Scott Co., The (Friction clutches), Wells and Patapsco Sts., Baltimore, Md.
Single Faucet & Flush Valve Co. (Cocks and valves), 617 W. Jackson Blvd., Chicago, Ill.
Sinker-Davis Co., The (Engines, sawmill mach'y, etc.), 230 S. Missouri St., Indianapolis, Ind.
Sipho Products Corp. (Drainers), 93 Broad St., Boston, Mass.
Sipp Machine Co., The (Drilling machines), Keen St. & Erie R. R., Paterson, N. J.
Sirianni & Trumbettas Manufacturing Co. (Flexible shaft grinding machines), 6 Brown St., Carbondale, Pa.
Sistersville Tank & Boiler Works (Boilers and tanks), Sistersville, W. Va.
Skat Co., The (Metal cleaners), 19 New Park Ave., Hartford, Conn.
Skayef Ball Bearing Co. (Shaft hangers, etc.), 165 Broadway, New York, N. Y.
Skelton Shovel Co., Inc. (Shovels and spades), Dunkirk, N. Y.; sales agents, J. C. McCarty Co., 29 Murray St., New York, N. Y.
Skidmore Corp. (Vacuum pumps), 1535 Dayton St., Chicago, Ill.
Skilsaw, Inc. (Electric Hand Saws), 3814-24 Ravenswood Ave., Chicago, Ill.
Skinner Bros. Mfg. Co. (Heating, ventilating, drying and blow pipe apparatus), 1400-90 S. Vandeventer Ave., St. Louis, Mo.; Indianapolis; New York.
Skinner Chuck Co. (Chucks), New Britain, Conn.; 94 Reade St., New York, N. Y.; Rialto Bldg., San Francisco, Cal.; 552 W. Wash. Blvd., Chicago. (See index to advertisement, pages 7, 8 and 9.)
Skinner Engine Co. (Steam engines), 12th & Chestnut Sts., Erie, Pa.
Skinner Irrigation Co., The (Irrigation systems), Troy, O.
Skinner, M. B., Co. (Steam specialties), 558-562 Washington Blvd., Chicago, Ill. (See index to advertisement, pages 7, 8 and 9.)
Skybryte Company, The (Glass cleaner), Keith Bldg., Cleveland, O.
Slack-Horner Brass Mfg. Co., The (Range boiler fittings), 1638 Blake St., Denver, Colo.
Slates', Geo., Sons (Leather belting), Williamsport, Pa.
Slattery Gas Radiator Co. (Gas radiators), 118 Sanford St., Brooklyn, N. Y.
Sleeper & Hartley, Inc. (Wire working mach'y), 335 Chandler St., Worcester, Mass.
Slip-Not Belting Corp. (Leather belting), Kingsport, Tenn.
Sloan and Chase, Inc. (Tool Holders), 351 Sixth Ave., Newark, N. J.
Sloan Valve Co. (Plumbers' supplies), 4300 W. Lake St., Chicago, Ill.
Slocomb, F. F., & Co., Inc. (Pneumatic punches), 14th and Poplar Sts., Wilmington, Del.
Slocomb, J. T., Co. (Gauges, micrometers, etc.), 35 Oxford St., Providence, R. I.
Sly, W. W., Mfg. Co., The (Sand blast machines), 4700 Train Ave., Cleveland, O.; Birmingham; Chicago; Detroit; Los Angeles; New York; St. Louis; Chattanooga.
Smidth, F. L., & Co., Inc. (Belt Drives), 50 Church St., New York, N. Y.
Smith, A. P., Mfg. Co., The (Fire hydrants), N. E. cor. Norman & Lawrence Sts., East Orange, N. J.; Chicago, Boston, Tacoma.
Smith Brothers Nipple Works (Pipe nipples), Hamburg, Pa.
Smith-Courtney Co. (Bearing metal), So. 7th and Bainbridge Sts., Richmond, Va.
Smith, E. C. Mfg. Company (Bathroom fittings), 429 W. Superior St., Chicago, Ill.
Smith Co., E. M. (Cotton belting, etc.), 637 S. Clarence St., Los Angeles, Cal.
Smith Engineering Works (Rock and gravel handling machines), 32d and Locust Sts., Milwaukee, Wis.
Smith, F. H., Mfg. Co. (Riveting machines), 3047 Carroll Ave., Chicago, Ill.
Smith, F. P., & Co. (Belt hooks), Sharon Hill, Pa.
Smith, H. B., Co., The (Heating specialties), Westfield, Mass.
Smith, H. B., Machine Co. (Woodworking mach'y), Smithville, N. J.; Chicago; New York; San Francisco, Cal.; Atlanta.
Smith, H. D., & Co., The (Hand tools), Plantsville, Conn.
Smith, Malcolm H., Co., Inc. (Lubricators), 50 Congress St., Boston, Mass.
Smith, Manning J., Belting Co. (Cotton belting), Church & Lena Sts., Philadelphia, Pa.
Smith-Matthews Foundry Co. (Boiler grates, etc.), 6636 Charlevoix Ave., Detroit, Mich.
Smith, Otis A., Mfg. Co. (Washer cutters, etc.), Rockfall, Conn.
Smith Power Transmission Co. (Shaft couplings), 1218 Ontario St., Cleveland, O.
Smith, Samuel & Son Co. (Boilers), 150 Railroad Ave., Paterson, N. J.
Smith, S. Morgan, Co. (Steam and hydraulic turbines), York, Pa.; 176 Federal St., Boston; 76 W. Monroe St., Chicago, Ill.
Smith, T. L., Co., The (Mach'y), 1125 32d St., Milwaukee, Wis.

Smith, Seymour & Son, Inc. (Bench stops), Oakville, Conn.
Smith Welding Equipment Corp. (Welding and cutting apparatus), 2633 Fourth St., S. E., Minneapolis, Minn.
Smith, Werner G., Co., The (Lubricating oils, etc.), 2191 W. 110th St., Cleveland, O.
Smith, Winfield H. (Small power transmission mach'y), 20 Eaton St., Springville, Erie Co., N. Y.
Smith & Egge Mfg. Co., The (Sash, chains, etc.), 556 Lafayette St., Bridgeport, Conn.; 258 Broadway, New York; Chemical Bldg., St. Louis., Monadnock Bldg., San Francisco.
Smith & Hemenway Co. (Hand tools), 130 Colt St., Irvington, N. J.; 261 Broadway, New York, N. Y.
Smith & Kanzler (Asbestos products), 514 Washington Ave., Elizabeth, N. J.
Smith & Mills Co., The (Shaping machines), 2889 Spring Grove Ave., Cincinnati, O.
Smith & Robinson (Belt dressing), 412-20 Orleans St., Chicago.
Smith & Serrell (Shaft couplings), 20 Washington Pl., Newark, N. J.
Smock (Howard A.), Water Heater Co., 439 Massachusetts Ave., Indianapolis, Ind.
Smoot Engineering Corp'n (Regulators), 136 Liberty St., New York, N. Y.
Smooth-On Mfg. Co. (Iron and steel cement), 572-574 Communipaw Ave., Jersey City, N. J.; 20 Sacramento St., San Francisco; 223 N. Jefferson St., Chicago.
Smyth-Despard Co. (Leather belting), Broad and John Sts., Utica, N. Y.; 116 Broad St., New York, N. Y.
Snap-On Wrench Co. (Socket wrenches), 1270 S. Pierce St., Milwaukee, Wis.
Snap Tite Clamp Co., Inc. (Hose clamps), 110 W. 14th St., New York, N. Y.
Snell, J. H., & Sons (Steam engines), Hamburg, Pa.
Snell Mfg. Co. (Hand tools), Fiskdale, Mass.
Snyder, J. E. & Son (Drilling machines), 119 Dewey St., Worcester, Mass.
Snyder Mfg. Co. (Stud drivers), 850 Lafayette Blvd., W., Detroit, Mich.
Sodemann Heat & Power Co., (Radiator shields), 2306 Morgan St., St. Louis, Mo.
Solarine Co. (Metal polish), Eagle & Smallwood, Baltimore, Md.; 559 W. 33rd St., New York.
Solderall Co. (Solder), 129 Sussex Ave., Newark, N. J
Somerville Iron Works (Iron pipe and fittings), Somerville, N. J.
Sonneborn, L., Sons, Inc. (Boiler compound, lubricants, etc.), 114 Fifth Ave., New York, N. Y.; Philadelphia; Baltimore; St. Louis; Boston.
Sorge, A. Jr., & Co. (Power plant specialties), Monadnock Bldg., Chicago, Ill.
Soule Steam Feed Works (Steam engines and sawmill specialties), Meridian, Miss.
South Atlantic Waste Co., Inc. (Waste), Charlotte, N. C.
South Bend Lathe Works (Lathes), 425 E. Madison St., South Bend, Ind.
South Chester Tube Company (Iron pipe and fittings), 2nd and Thurlow Sts., Chester, Pa.
South Haven Foundry & Machine Co. (Vises), South Haven. Mich.
South Park Foundry & Machine Co. (Radiators, boilers, etc.), 23 E. 6th St., St. Paul, Minn.
Southern Belting Co. (Leather belting), 184-190 So. Forsyth St., Atlanta, Ga.
Southern Pipe & Foundry Co., (Cast iron soil pipe and fittings), Birmingham, Ala. (Gulf States Pipe Corp., Anniston, Ala., exclusive sales agents).
Southern Pipe & Foundry Co. (Cast iron soil pipe and fittings), Gate City, Ala. (Gulf States Pipe Corp., Anniston, Ala., exclusive sales agents).
Southern Pipe & Foundry Co., Inc., The (Cast iron soil pipe and fittings), Knoxville, Tenn. (Gulf States Pipe Corp., Anniston, Ala., exclusive sales agents.)
Southern Saw Works (Sawmill mach'y), Box 1577, Atlanta, Ga.; 633 Carondelet St., New Orleans; 50 Church St., New York.
(See index to advertisement, pages 7, 8 and 9.)
Southern Sewer Pipe Works (Septic tanks), P. O. Box 1592, Birmingham, Ala.
Southern Skein & Foundry Co. (Jack screws), E. Lake St., Chattanooga, Tenn.
Southington Hardware Co., The (Carpenters' tools), Southington, Conn.
Southington Mfg. Co., The (Hand tools), Southington, Conn.
Southwark Foundry & Machine Co. (Hydraulic machinery, etc.), Washington Ave. and 5th St., Philadelphia, Pa.; Swetland Bldg., Cleveland; Fisher Bldg., Chicago.
Southwestern Broom Mfg. Co. (Brooms), 701 9th Ave., Evansville, Ind.
Southwick, Geo. W. Co., The (Belt lacing, dressing, etc.), 60-62 Summer St., Stamford, Conn.
Spang, Chalfant & Co., Inc. (Steel pipe and tubes), Union Bank Bldg., Pittsburgh, Pa.
Spang & Company (Engines and oil well equipment), Butler, Pa.; Cameron, W. Va.; Cisco, Texas; 205 Wood St., Clarksburg, W. Va.; 50 Church St., New York.
Sparta Iron Works Co. (Well drilling machines), Sparta, Wis.; Bowling Green, Ky.
Spartan Glove Co. (Industrial gloves), Station 3C, Dayton, O.
Spartan Saw Works (Hack saw blades), 152 Fisk Ave., Springfield, Mass.
Spaulding Fibre Co., Inc. (Hard fibre sheets, rods, etc.), 322 Wheeler st., Tonawanda, N. Y.
Spaulding & Metcalf (Oil filters), 514 Arch St., Philadelphia, Pa.
Speakman Company (Plumbing goods), 30th & Spruce Sts., Wilmington, Del.
Speare's, Alden Sons Co., The (Abrasives), 140-58 Sixth St., Cambridge, 41, Mass.; Chicago; New York.
Spear, James, Stove & Heating Co., (Laundry heaters), 1823 Market St., Philadelphia, Pa.
Special Chemicals Co. (Soldering chemicals), Highland Park, Ill.
Specialty Bolt & Rivet Works (Bolts, screws, etc.), 132 Hillside Ave., Shelton, Conn.
Specialty Device Co. (Pole line hardware), 106 W. 3d St., Cincinnati, O.
Specialty Engineering Co. (Coal yard equipment), Allegheny and Trenton Aves., Philadelphia, Pa.
Specialty Mfg. Co. (Factory Brooms and Brushes), Berea Road and Madison St., Cleveland, O.
Specialty Mfg. Co. (Damper regulators, etc.), 2632 University Ave., St. Paul, Minn.
Speednut Wrench Corp. (Wrenches), 190 N. State St., Chicago, Ill.
Speer Carbon Co. (Carbon brushes), St. Marys, Pa.
Speidel Elevator Corp. (Hoists, elevators, etc.), 275 W. Buttonwood St., Reading, Pa.
Spence Engineering Co., Inc. (Valves, etc.), 110 E. 42nd St., New York, N. Y.
Spencer Heater Company (Heaters and boilers), Williamsport, Pa.
Spencer, S. M., Mfg. Co. (Steel Stamps), 9 Cornhill St., Boston, Mass.
Spencer Regulator Co. (Vises), Derby & Liberty St., Salem, Mass.
Spencer Thermostat Co. (Thermostats), Cambridge, Mass.
Spencer Turbine Co., The (Air Compressors), 484 New Park Ave., Hartford, Conn.
Spice, Alfred, Process Co. (Soldering flux), 26 Florence St., Jersey City, N. J.
Spiral Boiler & Radiator Co. (Radiators, etc.), 998 Raymond Ave., St. Paul, Minn.
Spiral Cutter Co., The (Woodworking cutters), Faribault, Minn.
Sprague Electric Hoist Division, The, of the Shepard Electric Crane & Hoist Co. (Electrical Machinery), 30 Church St., New York, N. Y.
Sprague Meter Co., The (Gas meters), 35 South Ave., Bridgeport, Conn.; Davenport, Ia.; San Francisco, Cal.; Los Angeles, Cal.
Spray Engineering Co. (Spray nozzles), 60 High St., Boston, Mass.
Springfield Automatic Screw Mch. Corp. (Automatic screw machines), Fitchburg, Mass.
Springfield Belting & Supply Co., The (Leather belting), 216 Worthington St., Springfield, Mass.
Springfield Boiler Co. (Boilers), Springfield, Ill.; Chicago; New York, N. Y.
Springfield Expansion Shield Co. (Expansion shields), 175 State St., Springfield, Mass.
Springfield Machine Tool Co., The (Metal working mach'y), 631 Southern Ave., Springfield, O.
Springfield Mfg. Co. (Grinding mach'y), 317 Mountain Grove Ave., Bridgeport, Conn.
Springfield Waste Co. (Waste), 109 Mill St., Springfield, Mass.
Springfield Webbing Co. (Cotton webbing), 235 Mill St., Springfield, Mass.
Sprout, Waldron & Co. (Mill and power transmission equipment), Muncy, Pa.
Squires, C. E., Co., The (Steam traps, etc.), 40th St. and Kelly Ave., Cleveland, O.
Staats, Geo., & Co. (Plumbing brass goods), 74-76 Bayard St., Brooklyn, N. Y.
Staatsburg Ice Tool Works, Staatsburg, N. Y.
Stacey, Eugene C. (Load Binders), Tiffin, Ohio.
Stacey Mfg. Co., The (Iron pipe and fittings), Big Four R.R. and Township Ave., Elmwood, Cincinnati, O.; 718 Mission St., San Francisco.
Stack Heater Co. (Water heaters), 250 Stuart St., **Boston, Mass.**
Staff Brothers Co. (Wrenches), 1755 Broadway, New **York, N. Y.**
Stafford, E. H., Mfg. Co. (Car movers), 367 W. Adams St., Chicago, Ill.
Stahl, Joseph (Drain pipe solvent), 229 W. 105th St., New York, N. Y.
Stamford Foundry Co. (Laundry heaters), Stamford Conn.
Stamford Rolling Mills Co. (Sheet brass, etc.), 342 Madison Ave., New York City.

Standard Abrasive Co., Inc. (Abrasive papers), Garfield, N. J.
Standard Alloys Co. (Tool Steel), Flannery Bldg., Pittsburgh, Pa.
Standard Asbestos Mfg. Co. (Pipe covering), 822 W. Lake St., Chicago, Ill.
Standard Bolt Co. (Iron bolts), Columbus, O.
Standard Brass Casting Co. (Brass goods), 3rd and Jefferson Sts., Oakland, Cal.
Standard Brass Mfg. Co. (Plumbing brass goods), Mann Bldg., Utica, N. Y.
Standard Brass & Iron Works (Brass fittings), 1820 St. Paul Ave., Milwaukee, Wis.
Standard Cast Iron Pipe & Foundry Co. (Cast iron pipe and fittings), Atlanta, Ga.
Standard Chemical Corp. (Boiler compound), Kalamazoo, Mich.
Standard Conveyor Co. (Conveyors, elevators), 315 2nd Ave., N. W., North St. Paul, Minn.; branches in principal cities.
Standard Crayon Mfg. Co. (Crayons), 61 Putnam St., Danvers, Mass.
Standard Electrical Tool Co., The (Electric tools), 1938-46 W. Eighth St., Cincinnati, O. (See index to advertisement, pages 7, 8 and 9.)
Standard-Elsmere Granite Co. (Laundry trays), 1752 No. Spaulding Ave., Chicago, Ill.
Standard Engineering Co. (Pipe threading mach'y), Ellwood City, Pa.
Standard Engineering Works (Hand millers), 289 No. Main St., Pawtucket, R. I.
Standard Fibre Co. (Hard fibre), Somerville, Mass.
Standard Filter Company (Water filters), 326 W. Washington St., Chicago, Ill.
Standard Four Tire Co. (Automobile tires), Keokuk, Iowa.
Standard Gage Co., Inc. (Gages), Poughkeepsie, N. Y.
Standard Gas Engine Co. (Gas engines), Oakland, Cal.; 261 6th St., San Pedro, Cal.
Standard Gas Engine Works (Gasoline engines), 121 Front St., Erie, Pa.
Standard Gasket Co., Inc. (Gaskets), 1729 Ludlow St., Philadelphia, Pa.
Standard Heating & Radiator Co. (Gas burners, etc.), 220 Penn Ave., Pittsburgh, Pa.
Standard Iron Works (Vise benches), 508-10 E. 74th St., New York, N. Y.
Standard Leather Machinery Sales Co. (Leather machinery), 2640 Greenview Ave., Chicago, Ill.
Standard Machine Tool & Supply Co. (Variety woodworkers), 1st & Main Sts., Kansas City, Mo.
Standard Machinery Co. (Machines), Auburn, Providence, R. I.
Standard Metals Mfg. Co. (W. C. flush valves), 1302 No. Main St., Los Angeles, Cal.
Standard Meter & Mfg. Co. (Gas meters), 433 W. 42d St., New York, N. Y.
Standard Nipple Co. (Nipples), Hamburg, Pa.
Standard Nut & Bolt Co. (Bolts, screws, nuts, etc.), Abbott St., Valley Falls, R. I.
Standard Oil Co. of New York (Lubricating oils and greases), 26 Broadway, New York, N. Y.
Standard Optical Co. (Safety goggles), Geneva, N. Y.
Standard Packings Co. (Sheet packings), 6523 Euclid Ave., Cleveland, O.
Standard Pressed Steel Co. (Shaft hangers, etc.), Jenkintown, Pa.; Chicago, Ill.; Boston, Mass.; New York.
Standard Pulley Co. (Clutches and countershafts), 1734 Powers St., Cincinnati, O.
Standard Pump & Engine Co., The (Power pumps and engines), 730 Carroll St., Akron, O.; 328 Champlain Ave., Cleveland.
Standard Rewashed Wipers Co. (Wiping cloths), 3126 Shields Ave., Chicago, Ill.
Standard Rolling Mills, Inc. (Babbitt metals, etc.), 363 Hudson Ave., Brooklyn, N. Y.
Standard Safety Equipment Co. (Safety appliances for industrial workers), 410 No. Michigan Ave., Chicago, Ill.
Standard Sand & Machine Co. (Sand mixers), 5151 St. Clair Ave., Cleveland, Ohio.
Standard Sanitary Mfg. Co. (Plumbing fixtures), Bessemer Bldg., Pittsburgh, Pa.; branches in principal cities.
Standard Saw & Tool Mfg. Co., Inc. (Hack saw blades), 10 Damrell St., Boston 27, Mass.; 18 S. Clinton St., Chicago.
Standard Sawmill Machinery Co. (Sawmill mach'y), 913 E. 12th St., Erie, Pa.; 43 Cedar St., New York, N. Y.
Standard Scale & Supply Co., The (Scales and trucks), 412 First Ave., Pittsburgh, Pa.; 145 Chambers St., New York; 523 Arch St., Philadelphia; 1547 Columbus Rd., Cleveland, 163-71 N. May St., Chicago.
Standard Shop Equipment Co. (Set-up appliances), 32nd and Tinicum Ave., Philadelphia, Pa.
Standard Steam Specialty Co. (Steam specialties), 366 3rd Ave., New York, N. Y.
Standard Steel Tube Co. (Steel tubing), Toledo, O.
Standard Steel & Bearings, Inc. (Ball bearings), Plainville, Conn.
Standard Stone Co. (Laundry trays), 326 Calyer St., Brooklyn, N. Y.
Standard Tank & Seat Co. (Plumbers' woodwork), 314 No. Front St., Camden, N. J.
Standard Thermometer Co. (Thermometers), 65 Shirley St., Boston, Mass.; Detroit, Mich.
Standard Tool Co., The (Machinists' tools), 6900-7000 Central Ave., Cleveland, O.; 94 Reade St., New York; 552 W. Washington Blvd., Chicago, Ill.; 1101 Scollay Sq. Bldg., Boston, Mass.; 401 Liberty Bldg., Philadelphia.
Standard Turbine Corp. (Steam turbines), Wellsville, N. Y.
Standard Union Co. (Pipe joint unions), 7 Water St., Boston, Mass.
Standard Water System Co. of New Jersey (Distilling apparatus), Hampton, N. J.
Standard Wire Co., The (Electric lamp guards), New Castle, Pa.
Stanley Belting Corp. (Textile belting), 13 N. Jefferson St., Chicago.
Stanley Rule & Level Plant, Atha Dept. (Rules and levels), 111 Elm St., New Britain, Conn.
Stanley Works, The (Brackets, hinges, screws, etc.), Grove Hill & Lake Sts., New Britain, Conn.; 73 E. Lake, Chicago; 100 Lafayette St., New York; San Francisco, Los Angeles, Seattle.
Stanton Heater Co. (Water heaters, etc.), Martins Ferry, O.
Stanworth Tool Mfg. Co., Inc. (Machine tools), 40-44 West North St., Indianapolis, Ind.
Star Bit & Tool Co. (Bits, chisels, etc.), 1016 9th St., Rockford, Ill.
Star Brass Mfg. Co. (Brass goods), 53 Oliver St., Boston, Mass.; 819 Fulton Bldg., Pittsburgh; 70 Cortlandt St., New York; 6 East Lake St., Chicago.
Star Drilling Machine Co., The (Well drills, steam jet blowers), 475 Washington St., Akron, O.; Chanute, Kans.; Long Beach, Cal.; Portland, Ore.; New York.
Star Expansion Bolt Co. (Expansion bolts, etc.), 147 Cedar St., New York, N. Y.; 112 W. Lake St., Chicago; 700 E. Third St., Los Angeles; 20 Colman Dock, Seattle.
Star Felt Cutting Co., The (Felt specialties), 69th St. and Third Ave., Brooklyn, N. Y.
Star Foundry Co. (Power hammers), Albert Lea, Minn.
Star Machinery Co. (Engines), 1731-1741 S. 1st Ave., S. Seattle, Wash.
Star Mfg. Co., The (Pipe unions), 71 Willard Ave., Providence, R. I.
Star Mfg. Co., The (Gas engines, mine cars, etc.), New Lexington, O.
Star Oil Co., The (Oils), 348 N. Irving Ave., Chicago, Ill.
Star Pointer Pump Mfg. Co. (Spray pumps), Menasha, Wis.
Star Sanitary Rag Co. (Wiping cloths), 2235 Ford Ave., Chicago, Ill.
Star Specialty Mfg. Co. (Grinders), 4737 Ravenswood Ave., Chicago, Ill.
Starbuck, R. M., & Sons (Plumbers' specialties), 42 Allyn St., Hartford, Conn.
Stark Pump Co. (Cellar drainers), 12033 Cardoni Ave., Detroit, Mich.
Stark Tool Co. (Bench lathes and fine tools), Waltham, Mass.
Starrett, L. S., Co., The (Machinists' fine tools), Athol, Mass.; 92 W. Broadway, New York; 17 N. Jefferson St., Chicago.
State Mfg. Co. (Boiler compound), 3545 E. 76th St., Cleveland, Ohio.
Stauffer Chemical Co. (Calcium chloride), 624 California St., San Francisco, Cal.
Sta-Warm Electric Heater Corp. (Glue pots), Ravenna, O.
Staybestos Mfg. Co. (Asbestos facings, etc.), Germantown Ave. & Berkley St., Philadelphia, Pa.
Staynew Filter Corp'n (Air Filters), Rochester, N. Y.
Steam Economy Co. (Steam specialties), 1021 E. 62nd St., Chicago, Ill.
Stearns Conveyor Co. (Conveying equipment), E 200th St., & St. Clair Ave., Cleveland, O.
Stearns, E. C., & Co. (Hardware), 224 Oneida St., Syracuse, N. Y.
Stearns Motor Mfg. Co. (Gas engines), Ludington, Mich.
Stebbins, E., Mfg. Co. (Plumbing brass goods), 32 Grace St., Springfield, Mass.
Stedman's Fdy. & Machine Works, The (Conveyors, screens, etc.), Aurora, Ind.
Steel Basket Co. (Steel baskets), 712 So. 3rd St., Cedar Rapids, Iowa.
Steel City Testing Laboratory (Testing machines), 5444 14th Ave., Detroit, Mich.
Steel Scaffolding Co. (Steel scaffolding), 1101 No. Governor St., Evansville, Ind.
Steel Specialties Co. (Nut lock washers), W. Water St., Wakefield, Mass.
Steel Tank & Products Corporation, 26 N. Jefferson St., Chicago.

Steel Wheels, Inc. (Grinding Wheels), Avenue L and Thorton St., Newark, New Jersey.
Steere Engineering Co., The (Valves), 3-162 General Motors Bldg., Detroit, Mich.
Stein, John J., & Son (Pumps and exhaust heads), 28-30 Clay St., Brooklyn, N. Y.
Steinle Turret Machine Co. (Machine tools), Madison, Wis.
Steinmetz Heating Co., Inc. (Electric furnaces, etc.), 30 Church St., New York, N. Y.
Stempel Fire Extinguisher Co. (Fire protection apparatus), 4250 N. 20th St., St. Louis, Mo. (See index to advertisement, pages 7, 8 and 9.)
Stender Coppersmith Co., The (Expansion pipe joints), 2932 Smallman St., Pittsburgh, Pa.
Stephens-Adamson Mfg. Co. (Conveying and transmission mach'y), Aurora, Ill.; branches in principal cities.
Stephenson, C. H. (Ash receptacles), 27 Farrar St., Lynn, Mass.
Stephenson Chemical Co., Inc. (Drain cleaner), 213 West Austin Ave., Chicago, Ill.
Stephenson Mfg. Co., (Belt dressing), Second Ave., Albany, N. Y.
Stephenson & Sons (Pipe wrenches), 2425 State St., Harrisburg, Pa.
Sterling Blower Co., The (Exhaust heads), 618 Windsor St., Hartford, Conn.; 30 Church St., New York; Boston, Philadelphia, Rochester.
Sterling Brass Co., The (Brass goods), 9600 St. Catherine St., Cleveland, O.
Sterling Engine Co. (Gasoline engines), 1252 Niagara St., Buffalo, N. Y.
Sterling Engineering Co. (Heating specialties, 1636-44 Holton St., Milwaukee, Wis.
Sterling Faucet Co. (Plumbing brass goods), Newcomerstown, O.
Sterling Siren Fire Alarm Co., Inc. (Sirens), 56 Allen St., Rochester, N. Y.
Sterling & Skinner Mfg. Co., The (Brass cocks, etc.), 2672 E. Grand Blvd., Detroit, Mich.
Stetson-Ross Machine Works (Woodworking mach'y), 3204 1st Ave., So., Seattle, Wash.
Stevens, Walden-Worcester Co. (Wrenches), 475 Shrewsbury St., Worcester, Mass.
Steward, D. M., Mfg. Co. (Insulation materials), E 36th St., Chattanooga, Tenn.; 151 Kings St., W., Toronto.
Steward & Romaine Mfg. Co., The (Screws, washers, bolts, etc.), 124 N. 6th St., Philadelphia, Pa.
Stewart, A. F. (Fire engines), 70 Mt. Hope Ave., Rochester, N. Y.
Stewart Heater Co. (Feed water heaters, etc.), Buffalo, N. Y.
Stewart, Geo. B., Co. (Water heaters), 6310 Penn St., Pittsburgh, Pa.
Stewart, S. A., & Co. (Metal working machines), 85 Hall St., Waltham, Mass.
Stewart Mfg. Co. (Concrete mixers), Waterloo, Iowa.
Stewart Manufacturing Corporation (Bronze bars and bushings), 4504-85 Fullerton Ave., Chicago, Ill.
Stewart Specialty Co. (Plumbers' supplies), 727 Pillsbury Ave., St. Paul, Minn.
Stickle Steam Specialties Co. (Heaters, regulators, etc.), 502 So. Pennsylvania St., Indianapolis, Ind.
Stiles, H. A. & Co. (Wooden handles and abrasives), 166-74 Portland St., Boston, Mass.
Stillman-Carmichael Co. (Damper regulators), 56 Pearl St., Boston, Mass.
Stimpson, Edwin B., Co. (Sheet metal working mach'y), 68 Franklin Ave., Brooklyn, N. Y.
Stine, J. C., Co., The (Fans, ventilators, mining mach'y), Tyrone, Pa.
Stine, S. B. (Mine fans and other mine appliances), Osceola Mills, Pa.
Stiteler, Wm. L. (Power pumps), 429 No. 19th St., Philadelphia, Pa.
Stockbridge Machine Co. (Machine tools), 68 Abbott St., Worcester, Mass.
Stockham Pipe & Fittings Co. (Cast iron pipe and fittings), 4100 10th Ave., No., Birmingham, Ala.
Stockland Road Machinery Co. (Road mach'y), 2653 34th Ave., Minneapolis, Minn.
Stodder, W. F. (Sand blast nozzles), 218 S. Geddes St., Syracuse, N. Y.
Stokes Bros. Mfg. Co. (Files and rasps), Freehold, N. J.
Stoll, D. H., Co., Inc., The (Sheet metal mach'y), 31 Lansing St., Buffalo, N. Y.
Stone & Tar Products Co. (Cements, coatings, etc.), 97 So. 6th St., Brooklyn, N. Y.
Stonehouse Steel Sign Co. (Danger signs), 842 Larimer St., Denver, Colo.
Storm Mfg. Co., The (Elevators), 48 Vesey St., Newark, N. J.
Stortz, John, & Son, Inc. (Plumbers' tools), 210 Vine St., Philadelphia, Pa.
Stow, H. J. (Belt fasteners), 160 N. Wells St., Chicago, Ill.
Stow Manufacturing Co., Inc. (Flexible shafting), **443 State St., Binghamton, N. Y.**

Stowe, Geo. M., Jr. (Sand blast machinery), 61 Forest Ave., Buffalo, N. Y.
Stowell, Co., The (Tackle blocks, etc.), South Milwaukee, Wis.
Strait, H. N., Mfg. Co., The (Gas engines), Shawnee, Adams & Baird Sts., Kansas City, Mo.
Strait Scale Co. (Scales), Shawnee, Adams & Baird Sts., Kansas City, Kan.
Strand, N. A., & Co. (Flexible shafts and equipment), 5001-5009 N. Lincoln St., Chicago, Ill.
Strandwitz & Scott (Exhaust heads), 537 So. 2nd St., Camden, N. J.
Strater, Herman, & Sons (Air compressors, etc.), 70-74 Sudbury St., Boston, Mass.
Stratford, Geo., Oakum Co. (Oakum and friction boards), 160 Cornelison Ave., Jersey City, N. J.; 26 Water St., New York, N. Y.; 1335 Real Estate Trust Bldg. Philadelphia, Pa.; Cobalt, Can.
Stratton Fire Clay Co. (Plumbers' porcelain ware), Empire, O.
Stratton Mfg. Co. (Tool handles), Stratton, Me.
Strauss & Buegeleisen (Goggles), 30 Front St., Brooklyn.
Street Brothers Machine Works (Engines, hoists), Times Bldg., Chattanooga, Tenn.
Street & Kent Mfg. Co. (Brass goods), 1954-64 Clybourn Ave., Chicago, Ill.
Streich, A. & Bro., Co. (Trucks, lumber buggies, etc.), Oshkosh, Wis.; 663 W. Lake St., Chicago.
Streine Tool & Mfg. Co. (Sheet metal mach'y), New Bremen, O.
Strickler, W. W., & Bros. (Pipe cutters), 1475 Oak St., Columbus, Ohio.
Stringer Bros. Co., Inc. (Water closet fittings), 1100 W. 38th St., Chicago, Ill.
Strite Governor Pulley Co. (Pulley governors), 307 Third St., S., Minneapolis, Minn.
Stroh Steel Hardening Process Co. (Shear blades, etc.), Westinghouse Bldg., Pittsburgh, Pa.
Strom Bearings Co. (Ball bearings), 4548 Palmer St., Chicago, Ill.
Strombeck-Becker Mfg. Co. (File handles), Moline, Ill.
Strong, Carlisle & Hammond Co., The (Valves, steam traps and regulators), 1392 West 3rd St., Cleveland, O.; 200 Congress St., Boston; New York; Philadelphia; Detroit, Mich.; Chicago; Pittsburgh.
Strong, Homer (Leather belting), 301-7 State St., Rochester, N. Y.
Strong H. M., Steel Products Co., The (Tackle blocks, etc.), 1011-51 Power Ave., Cleveland.
Strong Machinery & Supply Co. (Packings), 121 Spring St., New York, N. Y.
Stroud, Arva (Electrical grinders), 109 W. 64th St., New York, N. Y.
Stroud, E. H., & Co. (Stokers, etc.), 928-34 Fullerton Ave., Chicago, Ill.
Stroudsburg Engine Works, The (Hoisting engines), Stroudsburg, Pa.
Stroudsburg Septic Tank Co. (Septic tanks), Stroudsburg, Pa.
Structural Slate Co. (Plumbing slate), Pen Argyl, Pa.
Struthers-Wells Co. (Gas engines), Warren, Pa.; 50 Church St., New York.
Stuart, D. A., & Co. (Lubricating oils), 2727 So. Troy St., Chicago; 342 Kenwood Ave., Dayton, O.; 13417 Fourth Ave., Cleveland, O.; 205 Kresge Bldg., Detroit.
Stuart Foundry Co. (Grates), 138 So. Junction Ave., Detroit, Mich.
Stuart & Peterson Co., The (Kettles and glue pots), Burlington, N. J.
Stuebing-Cowan Company, The (Factory trucks), 312 E. Court St., Cincinnati, O.
Stuebner, G. L., Iron Works (Elevating buckets), West 12th St., Long Island City, N. Y.
Stumpf, Una-Flow Engine Co., Inc. (Steam engines), S. A. & K. Bldg., Syracuse, N. Y.
Stupakoff Laboratories Co. (Pyrometers), 6617-6627 Hamilton Ave., Pittsburgh, Pa.
Sturtevant, B. F., Co. (Blowers, engines, etc.), 200 Devonshire St., Hyde Park, Boston, Mass.; branches in principal cities.
Success Furniture Corp. (Rolling ladders), 4908 Delmar St. (Kirkwood), St. Louis, Mo.
Success Novelty Co., The (Lubricators), 618 E. Cary St., Richmond, Va.
Sugar Beet Products Co. (Boiler compounds), Waller and Niagara Sts., Saginaw, Mich.
Sumet Corporation (Bearing metals), 1543 Fillmore Ave., Buffalo, N. Y.
Sumter Machinery Co. (Sawmill machinery), Sumter, S. C.
Sun Oil Company (Oils), Finance Bldg., Philadelphia, Pa.
Sun Shipbuilding Co., Wetherill Plant (Engines and boilers), Chester, Pa.
Sun Vapor Street Light Co., The (Gasoline torches and furnaces), 1002 Market St., So. Canton, O.
Sundh Electric Co. (Tank switches), 5 Avenue C, Newark, N. J.

Sunshine-Jasper Co. (Blowers), 59 E. 8th St., New York, N. Y.
Sundstrand Machine Tool Co. (Machine tools), Rockford, Ill.
Superbo Mfg. Co. (Water heaters), 1662 Long Beach Ave., Los Angeles, Cal.
Superheater Co., The (Steam superheaters), 17 E. 42nd St., New York; Boston, Chicago, Pittsburgh, Pa.
Superior Body & Clamp Co. (Clamps), 748 Front Ave., New York, N. Y.
Superior Clamp Co. (Clamps), 1055 W. Van Buren St., Chicago, Ill.
Superior Flake Graphite Co. (Flake graphite), 33 So. Clark St., Chicago.
Superior Gas Engine Co. (Gas engines), 1401 Sheridan Ave., Springfield, O.
Superior Grinding Wheel Co. (Grinding Wheels), 100 Felton St., Boston, Mass.
Superior Iron Works Co. (Boiler grates), Lamborn Ave. and No. 3rd St., Superior, Wis.
Superior Leather Belting Co. (Leather belting), 307 Pearl St., New York.
Superior Machine & Boiler Works (Heating boilers), 848 W. Superior St., Chicago, Ill.
Superior Machine & Engineering Co. (Drill heads), 1930 Ferry Park, Detroit, Mich.
Superior Machine Tool Co., The (Drilling machines), Kokomo, Ind.
Superior Mfg. Co. (Heating appliances), Liverpool St. & River, Pittsburgh, Pa.
Superior Plumbing Specialty Co. (Joint runners), 5 East 3rd St., New York, N. Y.
Superior Saw Mfg. Co. (Hack saw blades), 1324 Metropolitan Ave., Brooklyn, N. Y.
Superior Screw & Bolt Mfg. Co., The (Screws and bolts), Cor. East 93rd St. and Aetna Rd., Cleveland, O.
Superior Steel Pipe Co. (Lined pipe), 2111 Farmers Bank Bldg., Pittsburgh, Pa.
Superior Steel Stamp Co. (Steel stamps), 1218 W. 6th St., Cleveland, O.
Surface Combustion Co. (Air and gas mixers), 362 Gerard Ave., Bronx, New York, N. Y.
Surty Mfg. Co., Inc., The (Machinery guards), 4139 W. Kinzie St., Chicago, Ill.
Suspension Bearing Co. (Ball bearings), Spartanburg, S. C.
Sutherland Leather & Felt Co. (Mechanical leather goods), 743 Beaubien St., Detroit, Mich.
Sutherland Tool Co. (Milling cutters), Greenville, Mich.
Sutton-Abramsen Engineering Co. (Straightening machines), 1308-9 Park Bldg., Pittsburgh, Pa.
Swaby Mfg. Co. (Pumps and valves), 2010 Marshall Blvd., Chicago, Ill. (See index to advertisement, pages 7, 8 and 9.)
Swain Company, The (Lubricators, etc.), 443 W. 37th St., Chicago, Ill.
Swaine, Fred J., Mfg. Co., The (Presses and dies), 7th and O'Fallon Sts., St. Louis, Mo.
Swan, Jas., Co. (Small tools), Seymour, Conn.
Swan-Finch Oil Corp. (Oils and greases), 522 Fifth Ave., New York, N. Y.; Boston; Buffalo; Chicago; Detroit; Syracuse; Philadelphia; Atlanta; Pittsburgh; San Francisco; Toronto.
Swartwout Co., The (Power plant specialties), 18511 Euclid Ave., Cleveland, O.
Sweetland Waste Co. (Cotton waste), 134 Tudor St., Boston, Mass.
Swett, A. L., Iron Works (Washers, screws and ferrules), Glenwood Ave., Medina, N. Y.
Swett, Frank W., & Son (Band saw blades), 1716 W. Adams St., Chicago, Ill.
Swift Electric Welder Co. (Electric Welders), Fort and Mt. Elliott Sts., Detroit, Mich.
Swift Lubricator Co., The (Lubricators), 729 Second St., Elmira, N. Y.
Sykes Co., The (Elevator buckets), 2300 W. 58th St., Chicago, Ill.
Syntron Company (Electric hammers), 400 Lexington Ave., Homewood, Pa.
Syracuse Chilled Plow Co., Inc. (Ash barrows), 111 Wyoming St., Syracuse, N. Y.
Syracuse Gear Co. (Gears), 500 E. Water St., Syracuse, N. Y.
Syracuse Industrial Gas Co. (Pressure blowers), 208 S. Geddes St., Syracuse, N. Y.
Syracuse Radiator Co. (Radiators, boilers, etc.), Everson Bldg., Syracuse, N. Y.
Syracuse Smelting Works, 59 Paidge Ave., Brooklyn, N. Y. (See United American Metals Corp.)
Syracuse Steam Generator, Inc. (Steam boilers), South Ave. and Grant Pl., Syracuse, N. Y.
Syracuse Supply Co. (Leather belting), 320 W. Fayette St., Syracuse, N. Y.
Syracuse Twist Drill Co. (Twist drills), 936 Grape St., Syracuse, N. Y.

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Taber Pump Co. (Centrifugal pumps), 291-297 Elm St., Buffalo, N. Y.
Tabor Mfg. Co. (Foundry mach'y), 6225 Tacony St., Philadelphia, Pa.
Tacony File & Hardware Co. (Files), 6744 Wissanoming, Tacony, Philadelphia, Pa.
Taft-Peirce Mfg. Co., The (Machinery and toolroom specialties), 32 Mechanics Ave., Woonsocket, R. I.
Tagliabue, C. J., Mfg. Co. (Pressure gauges and regulators), 18-88 33rd St., Brooklyn, N. Y.; branches in principal cities.
Tagliabue, G., Estate of (Thermometers, etc.), 304 Pearl St., New York, N. Y.
Taiz, Jacob & Son (Plumbers' tools), 2422 S. Alder St., Philadelphia, Pa.
Talcott, W. O. & M. W., Inc. (Belt fasteners), 91 Sabin St., Providence, R. I.
Tally-Meter Co. (Measuring machines), 17 Elmwood Ave., Norwich, Conn.
Tanite Co. (Grinding equipment), Stroudsburg, Pa.
Tannewitz Works, The (Woodworking mach'y), Grand Rapids, Mich.
Tate, Jones & Co., Inc. (Burners), 23 Broad St., Leetsdale, Pa.; 50 Church St., New York; 505 Ellicott Sq., Buffalo; 611 Empire Bldg., Philadelphia; 530 Monadnock Bldg., Chicago; 309 Frisco Bldg., St. Louis; 16 California St., San Francisco; Boston.
Taunton-New Bedford Copper Co. (Soldering coppers, brass, bronze, etc.), Taunton, Mass.; 61 Batterymarch St., Boston; 35 Howard St., New York.
Taunton Rivet Works (Brass, copper and steel rivets), 175 Broadway, Taunton, Mass.
Taylor Belting Co. (Leather belting), 247 S. Meridian, Indianapolis, Ind.
Taylor, Halsey W., Co., The (Drinking fountains), Warren, O.; New York, Chicago, San Francisco, Atlanta, Boston, Denver, Kansas City, Los Angeles, Philadelphia.
Taylor Instrument Co. (Thermometers, barometers, etc.), 95 Ames St., Rochester, N. Y.; 29 E. Madison St., Chicago; 141 Milk St., Boston.
Taylor, J. A. (Drain pipe solvents, etc.), 72 Worth St., Stamford, Conn.
Taylor, James L., Mfg. Co. (Clamps for woodworkers, toolmakers, etc.), Poughkeepsie, N. Y.
Taylor Machine Co., The (Oil engines), 304 S. Wabash Ave., Chicago, Ill.
Taylor, N. & G. Co. (Solder), 300 Chestnut St., Philadelphia, Pa.; 208 S. La Salle St., Chicago.
Taylor Oil Engines, Inc. (Oil engines), Ludington, Mich.
Taylor Portable Steel Derrick Co., 213-221 W. Grand Ave., Chicago, Ill. (See index to advertisement, pages 7, 8 and 9.)
Taylor, S. G., Chain Co. (Chain), 140 S. Dearborn St., Chicago, Ill. (See index to advertisement, pages 7, 8 and 9.)
Taylor-Shantz Co. (Sheet metal dies), 482 St. Paul St., Rochester, N. Y.; 299 Madison Ave., New York.
Taylor, Stiles & Co. (Machine knives), Riegelsville, N. J.
Taylor, W. P., Co. (Iron plumbing fittings, etc.), Ellicott Square, Buffalo, N. Y.
Taylor-Wharton Iron & Steel Co. (Chain, conveyors, etc.), High Bridge, N. J.; 504 Newhouse Bldg., Salt Lake City.
Taylor & Fenn Co. (Drilling machines), 54 Arch St., Hartford, Conn.
Teck Mfg. Co. (Plumbing brass goods), 2540 Diversey Ave., Chicago, Ill.
Temco Electric Motor Co., The (Drills), Leipsic, O. New York.
Templeton, Kenly & Co., Ltd. (Railroad jacks), 1020 S. Central Ave., Chicago, Ill.
Templeton Brothers, Inc. (Steam traps, etc.), 189 Belgrade Ave., Roslindale, Mass.
Tennison, G. E. (Leather fillet), 497 East 12th St., Cincinnati, O.
Tension Motor Base Co. (Electric motor bases), 15 E. 26th St., New York, N. Y.
Tepco Stoker Co. (Stokers), 7th and Ontario Sts., Philadelphia, Pa.
Terkelsen Machine Co. (Lathe chucks), 326 A. St., Boston, Mass.
Terrell's Equipment Co. (Metal lockers), 401 Hall St., N. E., Grand Rapids, Mich.
Terry Steam Turbine Co., The (Steam turbines), Windsor Ave., Hartford, Conn.; Philadelphia, Chicago, New York.
Tessmer Machine & Tool Co. (Combination tools), 1427 Rivard, Detroit, Mich.
Test-Tite Company (Shower baths, etc.), Ridge Ave. & Noble St., Philadelphia, Pa.
Texas Co., The (Lubricating oils), 17 Battery Pl., New York, N. Y.; branches in all principal cities.
Texas Mfg. Co. (Cylinders and valves), 255 W. 15th St., Ft. Worth, Tex.
Thatcher Co., The (Heating boilers), 41 St. Francis St., Newark, N. J.
Theanoil Mfg. Co. (Belt dressing), 2628 W. Sergant St., Philadelphia, Pa.
Thelen Brothers (Baling presses), Syracuse, N. Y.

Thermal Appliance Co., Inc. (Steam water heaters), 342 Madison Ave., New York, N. Y.
Thermalene Gas Corp. (Welding apparatus), Kankakee, Ill.
Thermidaire Corp. (Unit Heaters), 2443 Charlotte St., Kansas City, Mo.
Thermo Electric Instrument Co. (Electric ovens, etc.), 8 Johnson St., Newark, N. J.
Thermograde Valve Co. (Blowers, fans, etc.), Watertown, Mass.
Thermoid Rubber Co. (Mechanical rubber goods), Trenton, N. J. Branches in principal cities.
Thew Shovel Co., The (Shovels, steam), Lorain, O. Branches in principal cities.
Thomas Coupling Co. (Flexible pipe couplings), Troy, Pa.
Thomas Elevator Co. (Hoists and chucks), 20 S. Hoyne Ave., Chicago, Ill.
Thomas Flexible Coupling Co. (Pipe couplings), Warren, Penna.
Thomas Grate Bar Co. (Boiler grates), 10th Ave., No., Birmingham, Ala.; Hippodrome Bldg., Cleveland; Railway Ex. Bldg., Chicago; 2 Rector St., New York; 315 Board of Trade Bldg., New Orleans, La.
Thomas Pump Works (Pumps), 154 Spring St., New York, N. Y.
Thomas, Seth, Clock Co. (Clocks), 19 W. 44th St., New York.; 215 W. Randolph St., Chicago, Ill.
Thomas-Smith Co., The (Industrial signals, etc.), Stark Ave., S. W., Canton, O.
Thomas Spacing Machine Co. (Punches), Fulton Bldg., Pittsburgh, Pa.
Thompson Grinder Co., The (Grinding machines), Zischler and W. Main Sts., Springfield, O.
Thompson, The Henry G., & Son Co., (Saws), 277 Chapel St., New Haven, Conn.
Thompson Iron Works (Iron and steel sinks), 1825 Callowhill St., Philadelphia, Pa.
Thompson, Judson L., Mfg. Co., The (Rivets), Waltham, Mass.
Thompson Mfg. Co. (Lawn sprinklers), 2251 E. 7th St., Los Angeles, Cal.
Thompson Mfg. Co. (Vacuum pumps), 811 24th St., Des Moines, Iowa.
Thompson Rubbing Machine, Inc. (Rubbing machines), 433 State St., Binghamton, N. Y.
Thomson Electric Welding Co. (Welders), 161 Pleasant St., Lynn, Mass.
Thomson Spot Welder Co. (Welders), 161 Pleasant St., Lynn, Mass.; branches in principal cities.
Thomson Wood Finishing Co., The (Paints), 829-35 N. 3d St., Philadelphia, Pa.
Threadwell Tool Co., The (Taps, dies, etc.), Greenfield, Mass.
Thread-Tight Co. (Pipe cement), 288 Bowery, New York, N. Y.
Thrush, H. A., & Co. (Heating specialties), Peru, Ind.
Thurston Mfg. Co. (Die filing machines), 140 Benedict St., Providence, R. I.
Thwing Instrument Co. (Pyrometers), 3339 Lancaster Ave., Philadelphia, Pa.; New York; Toronto; Pittsburgh, Pa.; San Francisco, Cal.; Los Angeles, Calif.
Tide Water Oil Co. (Lubricants), 11 Broadway New York, N. Y.
Tidey, Samuel E. (Thermostats), 256 Market St., Newark, N. J.
Tidey, Marcus B. (Woodworking mach'y), 335 Cortlandt St., Newark, N. J.
Tierney, J. P. (Rope fire escapes), 269 S. 4th St., Philadelphia, Pa.
Tilghman-Brooksbank Sand Blast Co. (Sand blast machines and equipment), 1118 S. 11th St., Philadelphia, Pa.
Tilghman, T. H. & Sons (Rawhide belt pins), Salisbury, Md.
Tillery's Little Janitor Clock Co. (Furnace clocks), 164 Market St., Newark, N. J.
Tillinghast, L. H., Supply Co., The (Lead pipe and sheet lead), 162-168 Dorrance St., Providence, R. I.
Tillotson Humidifier Co. (Humidifiers, etc.), 78 Fountain St., Providence, R. I.
Time-O-Stat Corp. (Water heater regulators), 88 Ogden Ave., Milwaukee, Wis.
Time Saver Mfg. Company (Die stocks and tools), 2841 No. Clark St., Chicago, Ill.
Timken Roller Bearing Co. (Roller bearings), Dueber Ave. and 20th St., S. W., Canton, O.
Timmis & Clissold (Saw setting machines, clamps, etc.), Bound Brook, N. J.
Tindell & Phillips (Saws), 701 Franklin Bldg., Philadelphia, Pa.
Tingue, Brown & Co. (Felt washers, wheels), 118 E. 25th St., New York, N. Y.; 1227 Wabash Ave., Chicago, Ill.; 765 Mission St., San Francisco.
Tinker, F., & Sons Co. (Knives & tools), 5687-97 Butler St., Pittsburgh, Pa.
Tip-It, Inc. (Welding compound), 1504 Methyl St., Pittsburgh, Pa.
Titchener, E. H., & Co. (Bathroom fittings), 136 Walnut St., Binghamton, N. Y.
Titeflex Metal Hose Co. (Hose and tubing), Badger Ave. and Runyon St., Newark, N. J.
Titusville Iron Works Co., The (Engines, boilers, etc.), Titusville, Pa.; New York, Pittsburgh, Chicago, Cleveland, Detroit, Washington, Buffalo.
Tobrin Tool Co., The (Hand tools), Plantsville, Conn.
Toepfer, Wm., & Sons Co. (Perforated metals), 84 Menominee St., Milwaukee, Wis.
Toledo Belting Co., The (Leather belting), Toledo, Ohio.
Toledo Foundry & Machine Co. (Steam shovels), 201-20 Cherry St., Toledo, O.
Toledo Glue Appliance, Div. of The Amer. Swiss Magneto Co. (Glue heaters), 1650 Fernwood Ave., Toledo, O.
Toledo Machine & Tool Co., The (Power presses), Toledo, O.; 549 W. Wash. St., Chicago.
Toledo Metal Furniture Co. (Factory stools), Dorr St. and N. Y. C. Ry., Toledo, O.
Toledo Metal Mfg. Co., The (Steel tanks), Toledo, O.
Toledo Pipe Threading Machine Co., The (Pipe threaders and cutters), 1445 Summit St., Toledo, O.; 50 Church St., New York, N. Y.
(See Index to advertisements, pages 7, 8 and 9.)
Toledo Saw & Supply Co. (Saws), Washington and St. Clair Sts., Toledo, O.
Toledo Scale Co. (Scales), Toledo, O.; Boston, New York, Philadelphia, Pittsburgh, Buffalo, Cincinnati, Atlanta, Chicago, Kansas City, Detroit, Minneapolis, San Francisco.
Toledo Ship Building Co. (Boilers), 2339 Front St., Toledo, O.
Toledo Steel Tube Co., (Steel tubing), Toledo, O.
Toledo Tap Co. (Taps and dies), Toledo, O.; 810 W. Lake St., Chicago, Ill.
Toledo Washer & Stamping Co., The (Pipe hangers), 216 Lafayette St., Toledo, O.
Toledo Wheelbarrow Co., The (Wheelbarrows), N. W. cor. Broadway & Wabash Crossing, Toledo, O.; 337 River St., Chicago, Ill.
Toles, W. C., Co. (Quick action vises), Woodstock, Ill. (See index to advertisement, pages 7, 8 and 9.)
Tolhurst Machine Works (Centrifugal machines), Fulton St. and 6th Ave., Troy, N. Y.; 111 Broadway, New York.; 8 So. Dearborn St., Chicago; Merchants Exchange Bldg., San Francisco; Charlotte, N. C.; Hamilton, Ont.
Tolman Brushes, Inc. (Brooms and brushes), 613 Milwaukee Ave., Chicago, Ill.
Tomkins-Johnson Co., The (Flexible shaft couplings), Jackson, Mich.
Tomlin-Harris Machine Co. (Hydraulic presses), Cordele, Ga.
Ton-Tex Corp. (Composition belting), 345-351 W. 35th St., New York, N. Y.
Tool Co., T. & H., The (Hammers), Elyria, O.
Torchweld Equipment Co. (Welding and cutting apparatus), 224 N. Carpenter St., Chicago, Ill.; Pittsburgh, Pa.; Detroit; Atlanta; Cincinnati; Cleveland; Kansas City; Milwaukee; Minneapolis; Philadelphia; St. Louis.
Toronto Foundry & Machine Co., Inc. (Boiler grates), Toronto, Ohio.
Torrey Roller Bushing Works (Bushings, pumps, etc.), 36-44 Commercial St., Bath, Me.
Torrington Brush Works, The (Brushes), Torrington, Conn.
Torrington Mfg. Co., The (Heavy machinery), Torrington, Conn.
Tower Mfg. Co. (Nails, staples, brads, etc.), Madison, Ind.
Towmotor Co., The (Tractors), 1226 E. 152nd St., Cleveland, O.
Townsend Co. (Rivets, nails and wire), New Brighton, Pa. Branches in principal cities.
Townsend Furnace & Machine Co. (Power transmission mach'y), Broadway, Albany, N. Y.
Townsend, H. P., Mfg. Co. (Riveters), 5 Chestnut St., Hartford, Conn.
Towsley, John T., Mfg. Co. (Wood working machines), factory trucks, presses, etc.), 1037 Evans St., Cincinnati, O.
Trageser, John, Steam Copper Works (Range boilers, tanks, etc.), 447-457 West 26th St., New York, N. Y.
Tragle Mfg. Co., Inc. (Files and rasps), 342 N. 6th St., Reading, Pa.
Trane Co., The (Pumps and heating specialties), Cameron Ave., La Crosse, Wis.; branches in principal cities.
Transmission Ball Bearing Co., Inc. (Ball bearings and trucks), 1050 Military Rd., Buffalo, N. Y.; 173 Lafayette St.; New York; 3105 N. 15th St.; Philadelphia; 549 W. Washington Boul., Chicago.
Tranter Mfg. Co. (Power plant specialties), 105 Water St., Pittsburgh, Pa.
Travis, G. E. (Shaking and dumping grates), Henry, Ill.
Traylor Engineering & Mfg. Co. (Power pumps), Allentown, Pa.; 30 Church St., New York; 1414 Fisher Bldg., Chicago, Ill.; 211 Fulton Bldg., Pittsburg; 900 Citizens Bank Bldg., Los Angeles, Calif.; Mohawk Block, Spokane, Wash.

Treadwell, M. H., Co. (Grates), 140 Cedar St., New York, N. Y.; 208 S. La Salle St., Chicago.
Treadwell Engineering Co. (Pipe threading machines, etc.), 140 Cedar St., New York; Easton, Pa.
Treaty Company, The (Sinks, etc.), Greenville, O.
Tremont Nail Co. (Nails), 205 Lincoln St., Boston, Mass.
Trenjer Specialty Company (Drinking fountains), Trenton, N. J.
Trent, Harold E., Co. (Melting Pots), 439-43 North Twelfth St., Philadelphia, Pa.
Trenton Brass & Machine Co. (Plumbing brass goods), Prospect and Dale Sts., Trenton, N. J.
Trenton Emblem Co. (Soldering nipples), 120 Hamilton Ave., Trenton, N. J.
Trenton Potteries Co., The (Drinking fountains), Trenton, N. J.; 9 Tremont Pl., Boston; Monadnock Bldg., San Francisco; 15 E. 42nd St., New York.
Trevor Mfg. Co. (Woodworking mach'y), Lockport, N. Y.
Tri-State Engineering Co. (Steam engines), Zanesville, O.
Trico Fuse Mfg. Co. (Electric fuses), 1009 McKinley Ave., Milwaukee, Wis. Branches in principal cities.
Trill Indicator Co. (Engine indicators), 38 E. South St., Corry, Pa.
Trimont Mfg. Co. (Pipe wrenches), 55-71 Amory St., Roxbury, Mass.
Trimount Rotary Power Co. (Rotary pumps), 286 Whiting Ave., E. Dedham, Mass.
Triplex Automatic Valve Co., The, Milan, O.
Triplex Machine Tool Corp. (Lathes), 50 Church St., New York, N. Y.
Triumph Brass Co. (Pumps & brass fittings), Columbus, O.
Triumph Electric Corporation, The (Electric motors), 70th and Longview Ave., Carthage, O.
Triumph Valve Mfg. Co. (Valves), Mansfield, O.
Trojan Brass Mfg. Co., The (Brass cocks), 1273 Budd St., Cincinnati, O.
Trojan Electrical Steel Co. (Electric steel), 3401 S. Hoyne Ave., Chicago, Ill.
Troop Mfg. Co. (Water heaters, etc.), 2516 Jane St., Pittsburgh, Pa.
Tropical Paint & Oil Co., The (Lubricants), 1252 W. 70th St., Cleveland, O. Branches in principal cities.
Trow & Holden Co. (Stone cutting tools), Barre, Vt.
Troy Belting & Supply Co., The (Leather belting), 6-8 Grand St., Troy, N. Y.
Troy Engine & Machine Co. (Steam engines), Troy, Pa.
Troy File Works (Tool handles), Congress St., Troy, N. Y.
Trump Mfg. Co. (Hydraulic turbines), Springfield, O.
Truscon Laboratories, The (Waterproofing material), Trus Con Bldg., Detroit, Mich.
Truscon Steel Co. (Concrete inserts), Youngstown, Ohio.
Tryco Products, Inc. (Pressure regulators), Westfield, Mass.
Tubular Products Co., The (Portable shower baths), Southington, Conn.
Tubular Rivet & Stud Co. (Brass and copper rivets), 87 Lincoln St., Boston, Mass.
Tuck Mfg. Co. (Cold chisels), 74 Ames St., Brockton, Mass.; 229 W. Randolph St., Chicago; 845 Monadnock Bldg., San Francisco.
Tucker Company, Inc., The (Pipe cutters), 75 Murray St., New York, N. Y.
Tucker, W. W. & C. F. (Grease cups, etc.), 191 Franklin Ave., Hartford, Conn.
Tucker & Dorsey Mfg. Co. (Factory trucks), South State and Bates Sts., Indianapolis, Ind.
Tudor Boiler Mfg. Co., The (Tubular boilers), 715 E. 3d St., Cincinnati, O.
Tufts, Nathaniel, Meter Works (Gas meters), 455 Commercial, Boston, Mass.
Turbine Sewer Machine Co. (Sewer cleaning machines), 195 11th St., Milwaukee, Wis.
Turner Brass Works, The (Plumbers' furnaces, etc.), Sycamore, Ill.
Turner, Day & Woolworth Handle Co. (Wood handles), 7th and Dumesnil Sts., Louisville, Ky.
Turner, J. S., Mfg. Co. (Leather belting), 133 Middle St., Lowell, Mass.
Turner Machine Co. (Turret machines), Danbury, Conn.
Turner Oil Filter Co. (Oil filters), Niles, Mich.
Turner Tanning Machinery Co. (Leather working mach'y), 63 Walnut St., Peabody, Mass.; Newark, N. J.; Milwaukee; Philadelphia.
Turner & Deegan (Screwdrivers), Bristol, Conn.
Turner & Seymour Mfg. Co., The (Furnace and boiler chain), Torrington, Conn.
Tuthill Pump Co. (Cooling pumps), 131 W. 63rd St., Chicago, Ill.
Tuttle & Bailey Mfg. Co. (Registers, ventilators, etc.), 441 Lexington Ave., New York, N. Y. (See index to advertisement, pages 7, 8 and 9.)
20th Century Brass Works (Bushings and bearings), 516-18 Fifth Ave., So., Minneapolis, Minn.
Twin City Co., Selling Products of Minneapolis Steel & Machinery Co. (Steam and gas engines, power transmission machinery, etc.), 2854 Minnehaha Ave., Minneapolis; branches in principal cities.
Twin City Granitine Co. (Laundry trays), 448 Cleveland Ave., No., Saint Paul, Minn.
Twin City Steel Mfg. Co. (Plumbing specialties), 2652 34th Ave., So., Minneapolis, Minn.
Twin Disc Clutch Co., The (Clutch pulleys), 14th and Clark Sts., Racine, Wis.
Twin Fire Furnace Co. (Grates and furnaces), 1252 1st Natl. Bank Bldg., Chicago, Ill.
Tyler, Frederick A. (Heating specialties), 526 Mercer St., Albany, N. Y.
Tyler Tube & Pipe Co. (Boiler tubes), Washington, Pa.
Tyler, W. S., Co. (Wire screens), 3615 Superior Ave., Cleveland, O.; 68 Devonshire St., Boston; 332 S. Michigan Ave., Chicago; 247 Park Ave., New York.
Typhoon Fan Co. (Ventilating fans), 345 W. 39th St., New York, N. Y.

U

Uehling Instrument Co., The (Industrial instruments), 473 Getty Ave., Paterson, N. J.; Detroit, Philadelphia; 20 W. Jackson Blvd., Chicago.
Ulmer Leather Co. (Leather belting), Norwich, Conn.
Underwood, H. B., Corp. (Benders, Pipe), Philadelphia, Pa.
Underground Signal Co. (Pipe locaters), San Anselmo, Calif.
Uniflow Mfg. Co. (House pumps), Erie, Pa.
Union Asbestos & Rubber Co. (Asbestos goods), 310 So. Michigan Blvd., Chicago.
Union Belt Co. (Leather belting), 66 Troy St., Fall River, Mass.; New Bedford; Providence; Dayton; Toledo.
Union Belting Co. (Leather belting), 400 No. Second St., St. Louis, Mo.
Union Boiler & Mfg. Co. (Boilers, etc.), 4th St. and P. & R. Ry. Co., Lebanon, Pa.
Union Brass & Metal Mfg. Co. (Plumbers' brass goods and specialties), Lawson and Mackubin Sts., St. Paul, Minn.
Union Cabinet Co. (Tool chests), 621 St. Paul St., Rochester, N. Y.
Union Carbide Co. (Welding equipment and materials), Carbide & Carbon Bldg., New York, N. Y.; (Comprising: J. B. Colt Co.; Electro-Metallurgical Sales Corp.; Haynes Stellite Co., Kokomo, Ind., Linde Air Products Co.; Oxweld Acetylene Co., Chicago, Ill., and Newark, N. J.; Union Carbide Sales Co.; The Prest-O-Lite Co., Indianapolis, Ind.; National Carbon Co., Inc.)
Union Drawn Steel Co. (Shafting and screw stocks), 7th and 4th Sts., Beaver Falls, Pa.
Union Equipment Corp. (Air compressors), Butler, Pa.
Union Engineering Co. (Factory trucks), Cuyahoga and West 4th St., Cleveland, O.
Union Fibre Co., Inc. (Mineral wool), North End Mechanic St., Winona, Minn.; branch factory, Yorktown, Ind.; offices in principal cities.
Union Gas Burner Co. (Gas burners, etc.), 369 Ellicott St., Buffalo, N. Y.
Union Gas Engine Co. (Gas engines), Kennedy and East 7th Sts., Oakland, Cal.
Union Hardware Co. (Carpenter's tools) Torrington, Conn., 151 Chambers St., New York.
Union Iron Works Co., The (Engines, boilers, cars, etc.), Selma, Ala.
Union Iron Works (Power boilers, etc.), 15th and Cascade Sts., Erie, Pa.
Union Iron Works (Concrete buckets, etc.), 567 Newark St., Hoboken, N. J.
Union Mfg. Co. (Chucks), 296 Church St., New Britain, Conn.; 26 Cortlandt St., New York, N. Y.
Union Metal Works, Inc. (Plumbing brass goods), 80 Carter St., Chelsea, Mass.
Union Oil Works (Lubricating oils), 10th and Wayne Sts., Erie, Pa.
Union Packing & Rubber Co., Inc. (Packings, etc.), 57 Murray St., New York, N. Y.
Union Rubber & Asbestos Co. (Belting, hose and packing), Trenton, N. J. (See Index to advertisements, pages 7, 8 and 9.)
Union Sanitary Works (Enameled baths, sinks, etc.), Noblesville, Ind.
Union Soapstone Co. (Laundry trays, etc.), 14 Marshall St., Boston, Mass.
Union Shovel Works (Shovels, etc.), Box 59, Tyrone, Pa.
Union Smelting & Refining Co. (Metals), St. Charles St. and Ave. L, Newark, N. J.; Baltimore; Detroit; Chicago; New York; Cleveland.
Union Steam Pump Co. (Steam pumps), Battle Creek, Mich.
Union Stove Works (Laundry heaters, etc.), 70 Beekman St., New York, N. Y.

Union Tool Chest Co., Inc. (Tool chests), 19 Hand St., Rochester, N. Y.
Union Tool Co. (Oil well tools), Torrance, Cal.; Carnegie, Pa.; West Chicago, Ill.
Union Tool Co. (Machinists' tools), Orange, Mass.; 74 Murray St., New York; 34 N. Clinton St., Chicago.
Union Twist Drill Co., The (Cutters and drills), Athol, Mass.
Union Water Meter Co. (Water meters and valves), 33 Hermon St., Worcester, Mass.; 539 Real Estate Trust Bldg., Philadelphia.
Union Wire Rope Co. (Wire rope), 21st and Manchester Sts., Kansas City, Mo.
Unique Mfg. Co., Inc. (Blow torches, etc.), 221 Whiting, Chicago, Ill.
Unishear Co., Inc., The (Metal cutting shears), 170 Fifth Ave., New York, N. Y.
United American Metals Corp. (Babbitt metals), 59 Paidge Ave., Brooklyn, N. Y.
United Belt Mfg. Co. (Leather belting), 203 N. Second St., St. Louis, Mo.
United Brass Mfg. Co. (Brass goods), 3844 Hamilton Ave. N. E., Cleveland, O.
United Brass & Aluminum Mfg. Co. (Feed water heaters), Port Huron, Mich.
United Cement Products Co. (Septic tanks, etc.), 1402 Commerce St., Indianapolis, Ind.
United Conveyor Corp. (Ash handling systems), 37 W. Van Buren St., Chicago.
United Cork Companies (Pipe covering), Grant Ave., Lyndhurst, N. J.
United Engine Co. (Gasoline engines), Lansing, Mich.
United Engineering & Foundry Co. (Power presses), 2300 Farmers Bank Bldg., Pittsburgh, Pa.
United Iron Works (Electric hoists), Ridge Arcade Bldg., Kansas City, Mo.; Mayo Bldg., Tulsa, Okla.; 402 Andrews Bldg., Dallas, Texas.
United Lead Co. (Lead pipe, sheets, paints, etc.), 111 Broadway, New York, N. Y.; E. W. Blatchford Co., Chicago; Gibson & Price Co., Cleveland; Lausten Lead Works, Chicago; Le Roy Shot & Lead Works, New York; United Lead Co., Northwestern Works, St. Paul; Omaha Shot & Lead Works, Omaha; Jas. Robertson Lead Co., Baltimore; Sportsman's Shot Works, Cincinnati; Tatham Bros., New York; Tatham Bros., Philadelphia; Union Lead & Oil Works, Brooklyn.
United Lined Tube & Valve Co. (Lead lined pipe), 182 Franklin St., Boston, Mass.
United Metal Hose Co., Inc. (Metallic hose), 724-732 Garrison Ave., New York, N. Y.
United Smelting & Aluminum Co. (Aluminum), 18 Commerce St., New Haven, Conn.; Detroit, Chicago, New York.
United States Air Compressor Co. (Air compressors), 5300 Harvard Ave., Cleveland, Ohio.
United States Asbestos Co. (Asbestos goods), Manheim, Pa.; export office: 131 Liberty St., New York.
United States Asbestos Co. of Illinois (Packings), 629 Washington Blvd., Chicago, Ill.
U. S. Automatic Co. (Machine screws and nuts), Amherst, O.
U. S. Blow Pipe & Dust Collecting Co. (Dust collectors), 1224 No. Central Park Ave., Chicago, Ill.
United States Boiler Compound Co. (Boiler compound), 179 N. Wells St., Chicago.
United States Cast Iron Pipe & Foundry Co. (Pipe and fittings), Burlington, N. J.
United States Chain & Forging Co. (Chains), Union Trust Bldg., Pittsburgh, Pa.
United States Drill Head Co. (Drill heads), 1950 W. 6th St., Cincinnati, O.
U. S. Electrical Mfg. Co. (Electric grinders, etc.), 200 E. Slauson Ave., Los Angeles, Cal.
United States Electrical Tool Co., The (Electrical tools), 2488 W. 6th St., Cincinnati, O.
United States Expansion Bolt Co. (Expansion bolts), 139-41 Franklin St., New York, N. Y.; Chicago; San Francisco; Columbia, Pa.
U. S. Flexible Metallic Tubing Co. (Metallic hose), 65 Main St., San Francisco, Cal.; Houston; Seattle.
U. S. Gas Machine Co. (Gas machines, blowers, etc.), 9th St. and Clay Ave., Muskegon, Mich.
United States Gauge Co. (Pressure gauges, etc.), 44 Beaver St., New York; Chicago; San Francisco; Detroit; Philadelphia; Boston; New Orleans; Birmingham; Montreal.
United States Graphite Co., The (Lubricants), 1430 Holland Ave., Saginaw, Mich. Branches in principal cities.
United States Gutta Percha Paint Co. (Paints and cements), 12-30 Dudley St., Providence, R. I.
U. S. Indestructible Gasket Co. (Gaskets, lead hammers, etc.), 829 E. 15th St., Brooklyn, N. Y.
U. S. Leather Co., The (Leather for belting), 224 N. Canal St., Chicago, Ill.
United States Machine Co. (Woodworking mach'y), 720 West 3rd St., Williamsport, Pa.
United States Machine Tool Co. (Milling machines), 1950 W. 6th St., Cincinnati, O.
U. S. Metallic Packing Co., The (Steam packings), 429 N. 13th St., Philadelphia, Pa.; 454 Railway Exchange, Chicago.
United States Mineral Wool Co. (Mineral wool, gaskets), 280 Madison Ave., New York, N. Y.
U. S. Radiator Corp. (Heating specialties), Broadway and East Grand River, Detroit, Mich. Branches in all principal cities.
U. S. Reduction Co. (Babbitt metal), East Chicago, Ind.
United States Rocking Grate Bar Co. (Grates), 2825 W. Harrison St., Chicago, Ill.
United States Rubber Export Co. (Rubber goods of all descriptions), 1790 Broadway, New York, N. Y.
U. S. Safety Appliance Corp., The (Safety ladder shoes), 663 Erie Bldg., Cleveland, O.
U. S. Sand Paper Co. (Abrasives), Williamsport, Pa.; New York; Philadelphia; Detroit; Chicago; San Francisco; Gloucester, Mass.
United States Sanitary Mfg. Co. (Baths, sinks, etc.), Arrott Bldg., Pittsburgh, Pa.
United States Smelting Furnace Co., The (Smelting furnaces), "A" St., and L. & N., Belleville, Ill.
U. S. Tool Co., Inc. (Sub presses), Ampere, N. J.
United Utilities & Engineering Corp. (Water heaters), Lansdale, Pa.
United Steel & Wire Co. (Hose clamps), Battle Creek, Mich.
United Waste Mfg. Co. (Cotton waste), Jackson St., Troy, N. Y.
United Water Heater Co. (Water heaters), 6028 So. State St., Chicago, Ill.
United Wire & Supply Co. (Brass tubing, silver solder), 1497 Elmwood Ave., Providence, R. I.
Universal Boring Machine Co. (Boring machines), Hudson, Mass.
Universal Crane Co., The (Portable cranes), Elyria, O.
Universal Gasket & Mfg. Co. (Gaskets), 2901 S. Cicero Ave., Cicero, Ill.
Universal Grinding Machine Co. (Grinding machines), Fitchburg, Mass.
Universal Heater Mfg. Co. (Water heaters, etc.), 1000 No. Vandeventer Ave., Saint Louis, Mo.
Universal Hoist & Mfg. Co. (Hoists), Cedar Falls, Ia.
Universal Industrial Corp. (Hose clamps), Hackensack, N. J.
Universal Machine Co. (Bolt cutters), Bowling Green, Ohio.
Universal Machine & Tool Co. (Metalworking shapers), 601 Mahoning Rd., E., Canton, O.
Universal Motor Co. (Gas engines), Oshkosh, Wis.
Universal Oxygen Co. (Welding apparatus), Sheboygan, Wis.; 554-556 E. Water St., Milwaukee, Wis.
Universal Road Machinery Co. (Road mach'y), Kingston, N. Y.
Universal Sanitary Mfg. Co. (Vitreous plumbing ware), New Castle, Pa.
Universal Septic Tank Corp., Beaver Falls, Pa.
Universal Steel Co. (Steel mill products), Bridgeville, Pa.
Upshur Aluminum Solder (Aluminum solder), 130-132 W. 18th St., New York, N. Y.
Up-to-Date Tool Co. (Metal working tools), 222 Grove St., Waltham, Mass.
Upton & Gilman Machine Co. (Power transmission mach'y), 587 Middlesex St., Lowell, Mass.
Usona Mfg. Co. (Wire goods), 3510 Chouteau Ave., St. Louis, Mo.
Utica Drop Forge & Tool Co. (Pliers, nippers, etc.), 2415 Whitesboro St., Utica, N. Y.
Utica Valve and Fixture Co. (Brass fittings), 300-304 Hubbell St., Utica, N. Y.; 50 Church St., New York; 68 Devonshire St., Boston, Mass.; 837 Real Estate Trust Bldg., Philadelphia.
Utility Mfg. Co. (Tool chests, etc.), 11 No. 6th St., Philadelphia, Pa.

V

V. & O. Press Co., The (Presses and dies, sheet metal mach'y), 149 Broadway, Brooklyn, N. Y.
Vacuum Ash & Soot Conveyor Co. (Ash conveyors), Wilson Ave., Newark, N. J.
Vacuum Belting Co. (Leather belting), Vandalia R. R. and Harding St., Indianapolis, Ind.
Vacuum Oil Co. (Lubricants), 61 Broadway, New York, N. Y.
Vaile-Kimes Co., The (House pumps), 35 St. Clair St., Dayton, O.
Vajen Helmet Co., The (Smoke helmets), Richmond, Ind.
Valve Engineering Co. (Heating specialties), 66 Hamilton St., Cambridge, Mass.
Valvoline Oil Co. (Lubricating oil), 165 Broadway, New York, N. Y.; Boston; Philadelphia; Pittsburg; Cincinnati; Chicago; St. Louis; Denver; San Francisco; Los Angeles; Portland; Seattle.
Van Arnam Manufacturing Co. (Plumbers' supplies), Fort Wayne, Ind.

Van Dorn Electric Tool Co. (Electric tools), 2978 Woodhill Rd., Cleveland, O.; branches in principal cities.
Van Dorn Iron Works Co., The (Steel shelving, etc.), 2685 E. 79th St., Cleveland, O.
Van Duzen-Roys Co. (Gas engines), Columbus, O.
Van Expansion Bolt Mfg. Co. (Expansion bolts), 309 So. La Salle St., Chicago, Ill.
Van Ness Slate Co. (Plumbing slate), 29 Camp Pl., Newark, N. J.
Van Norman Machine Tool Co. (Grinding machines), 150-170 Wilbraham Ave., Springfield, Mass.
Van Praag Sales Corp. (Soldering apparatus), 19 East 17th St., New York, N. Y.
Van Riper Mfg. Co. (Leather belting), 14 Van Houten St., Paterson, N. J.
Van Zandt Gas Appliance Co. (Water heaters, etc.), 4050 Olive St., Saint Louis, Mo.
Vanadium Alloys Steel Corp. (Tool steel), Latrobe, Pa.
Vanadium Corp. of America (Steel alloys), 120 Broadway, New York, N. Y.
Vance, J. A. Co. (Sawmill mach'y), First and Depot Sts., Winston-Salem, N. C.
Vandegrift & Morris (Bolts, nuts, mach'y guards), Shelbyville, Ind.
Vanderman Mfg. Co., The (Vises, holders, pipe cutters), Willimantic, Conn.
Vapo Stove Co., The (Water heaters), Lima, O.
Vapor Vacuum Heating Co. (Heating specialties), Otis Bldg., Philadelphia, Pa.
Vaughan & Bushnell Mfg. Co. (Small forged tools), 2130 Carroll Ave., Chicago, Ill.
Vaughn Machine Co. (Wire and chain machinery), Cuyahoga Falls, O.
Vedoe-Peterson Co. (Reamers), Norfolk Downs, Mass.
Veeder Mfg. Co. (Speed indicators, etc.), 50 Sargeant St., Hartford, Conn.
Vellumoid Co., The (Gaskets and packings), 73 Tremont St., Boston, Mass.
Velte Foundry & Machine Co. (Gas valves), Mars, Pa.
Venn-Severin Machine Co. (Oil engines), 1327 W. North Ave., Chicago, Ill.
Verdin, Kappes & Verdin Co., The (Sheet metal mach'y), 108 W. 2nd St., Cincinnati, O.
Vermont Tap & Die Corporation (Taps), Newport, Vt.
Verona Tool Works (Tools, jacks, etc.), Plum St., Pittsburgh, Pa.; 50 Church St., New York; 1540 McCormick Bldg., Chicago.
Vibration Specialty Co. (Balancing machines), 1534 Winter St., Philadelphia, Pa.
Victor-Balata & Textile Belting Co. (Cotton belting), 38 Murray St., New York, N. Y.; 345-351 West Austin Ave., Chicago, Ill.; 203 Main St., Cincinnati, O. Factory, Easton, Pa.
Victor Brass Mfg. Co. (Floor traps), 6813 Wade Park Ave., Cleveland, O.
Victor Mfg. & Gasket Co. (Gaskets), 5750 W. Roosevelt Road, Chicago, Ill.
Victor-Peninsular Co. (Cap screws), 4646 Lawton Ave., Detroit, Mich.
Victor Products Corp. (Screw machine products), 2631-35 Belmont Ave., Chicago, Ill.
Victor Rubber Co., The (Packings, etc.), Maitland, Springfield, O.
Victor Saw Works, Inc. (Hack saw blades), Middletown, N. Y. (See index to advertisement, pages 7, 8 and 9.)
Victoria Metal Co. (Plumbing and steam spec.), 832-840 E. 8th St., Erie, Pa.
Victory Foundry & Machine Co., Inc. (Woodworking mach'y), 419 Broadway, Buffalo, N. Y.
Victory Manufacturing Co. (Engines and pipe fittings), Niles, Calif.
Viking Corp., The (Alarm valves), Hastings, Mich.
Viking Pump Co. (Steam pumps), 342 Madison Ave., New York, N. Y.
Viking Pump Co., The (Oil pumps), Cedar Falls, Iowa.
Viking Shear Co. (Metal cutting shears), E. Lake Rd., Erie, Pa.
Vilter Mfg. Co., The (Refrigerating mach'y), 935 Clinton St., Milwaukee, Wis.; Los Angeles; Salt Lake City.
Vincent Steel Process Co., The (Tools), 2519 Bellevue Ave., Detroit, Mich. (See index to advertisement, pages 7, 8 and 9.)
Vinco Company, Inc., The (Boiler cleaners), 75 Vesey St., New York, N. Y.
Virginia Leather Co., The (Leather belting), 22nd and McDonough Sts., Richmond, Va.
Virginia Wheel & Hole Sawing Machine Co. (Woodworking machinery), 14 Third St., N. E., Roanoke, Va.
Viscol Company (Belt dressing), 200 1st St., East Cambridge, Boston, Mass.
Vitaulic Company of America (Pipe couplings), 26 Broadway, New York, N. Y.
Vitek Manufacturing Co. (Factory stools), 3d floor, Industrial Bldg., Omaha, Neb.
Vitreous Enameling Co. (Plumbing enameled ware), 6700 Grant Ave., Cleveland, O.
Vitrified Wheel Co., The (Grinding wheels), Westfield, Mass.
Vitrolite Co. (Toilet room partitions), 133 W. Washington St., Chicago, Ill.
Vixen Tool Co. (Files), 879 Mt. Prospect Ave., Newark, N. J.
Vlchek Tool Co., The (Small tools), 3000 East 87th St., Cleveland, O.; 15 N. Jefferson St., Chicago; 300 W. 56th St., New York.
Vogel, Joseph A., Co. (Factory closets, etc.), 1203 Lombard St., Wilmington, Del.; St. Louis, Mo.
Vogel, Wm., & Bros. (Oil cans), 37 S. 9th St., Brooklyn, N. Y.
Vogt Brothers Mfg. Co. (Steam pumps), 1402 W. Main St., Louisville, Ky.
Vogt, Henry, Machine Co., Inc. (Hydraulic fittings), 10th and Ormsby Sts., Louisville, Ky.; New York; Philadelphia; Chicago; Dallas. (See index to advertisement, pages 7, 8 and 9.)
Volz Engineering Equipment Company (Steam saving equipment), 3732 E. Seventh St., Long Beach, Cal.
Voorhees Rubber Mfg. Co. (Belting and hose), 18-46 Bostwick Ave., Jersey City, N. J.; 30 Reade St., New York, N. Y.; 2045 Main St., Kansas City, Mo.
Vortex Manufacturing Company, The (Industrial paints), 1978 West 77th St., Cleveland, O.
Vulcan Crucible Steel Co. (Tool steel), Aliquippa, Pa.; 16 S. Clinton St., Chicago, Ill.; Boston; Philadelphia; Pittsburgh; St. Louis.
Vulcan Electric Heating Co. (Soldering tools), 107 W. 13th St., New York, N. Y.
Vulcan Iron Works (Hydraulic presses), 327 N. Irving Ave., Chicago, Ill.
Vulcan Mfg. Co. (Air compressors), 1511 Cypress St., Kansas City, Mo.
Vulcan Mfg. Co. (Grease cups), 1200 Fourth Ave., So., Seattle, Wash.
Vulcan Soot Cleaner Co. (Flue cleaners), Du Bois, Pa.; 549 Washington Blvd., Chicago.
Vulcan Tool & Machine Works, Inc. (Heaters), 36 Carter St., Newburgh, N. Y.
Vulcan Tool Mfg. Co., The (Small tools), Quincy, Mass.
Vulcan Valve Mfg. Co. (Valves, etc.), 3173 West 104th St., Cleveland, O.

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Wachs, E. H., Co., The (Steam engines), 1525 Dayton St., Chicago, Ill.
Wade-American Tool Co., The (Bench lathes), 49-59 River St., Waltham, Mass.
Wade Iron Sanitary Mfg. Co., The (Plumbers' traps and pumps), 553 W. Fulton St., Chicago, Ill.
Wadsworth Core Machine & Equipment Co. (Core making machines), 10 W. Buchtel Ave., Akron, Ohio.
Wagener Steam Pump Co. (Steam pumps), Cook Ave., S. W., and B. & O. R. R., Canton, Ohio.
Wagner Electric Corporation (Motors and dynamos), 6400 Plymouth Ave., St. Louis, Mo.
Wagner Manufacturing Co. (Overhead conveyors, door hangers, etc.), Cedar Falls, Iowa.
Wahlstrom Tool Co. (Oil cups, chucks, etc.), 5520 2d Ave., Brooklyn, N. Y.
Wailes Dove-Hermiston Corporation (Paints, etc.), Garwood, N. J.
Wakefield, Clarence E. (Wrenches), 89 Exchange St., Worcester, Mass.
Walcott Lathe Co. (Metal working mach'y), 414 N. Jackson, Jackson, Mich.
Waldo Bros. & Bond Co. (Power pumps), 202 Southampton St., Boston, Mass.
Walker's, Chas. W., Sons & Co. (Leather belting), 288 Market St., Newark, N. J.
Walker Dishwasher Corp. (Sinks, dishwasher), 246 Walton St., Syracuse, N. Y.
Walker, James, & Co., Ltd. (Packings), 46 West St., New York, N. Y.
Walker Mfg. Co. (Pipe joints), Fenton, Mich.
Walker, O. S., Co., Inc. (Magnetic chucks), Rockdale St., Worcester, Mass.
Walker, Thos., & Sons (Packings), 4617 Tacony St., Frankford, Philadelphia, Pa.
Walker & Forbes, Inc. (Asbestos packings), Mamaroneck, N. Y.
Walker & Pratt Mfg. Co. (Heating boilers, etc.), 31 Union St., Boston, Mass.
Wall, P., Mfg. Supply Co. (Sheet metal specialties, oilers, etc.), 3058 Preble Ave., Pittsburgh, Pa.
Wall Rope Works of New York (Rope), 48 South St., New York, N. Y.
Wallace Barnes Co. (Springs), 30 Main St., Bristol, Conn.; Book Bldg., Detroit.
Wallace Bros. Waste Co. (Waste), 3350 W. 48th Pl., Chicago, Ill.
Wallace Bros. (Test indicators), 160 No. Wells St., Chicago, Ill.

Wallace, J. D., & Co. (Woodworking mach'y), 2801 Wilcox St., Chicago, Ill.; Boston; Buffalo; New York; Philadelphia; Pittsburgh; Baltimore; Cincinnati; Detroit; Louisville; Knoxville, Tenn.; St. Louis; Denver; San Francisco. (See index to advertisement, pages 7, 8 and 9.)
Wallace Supplies Mfg. Co. (Bending machines), 1312 Diversey Parkway, Chicago, Ill.
Walls Sales Corp. (Grinders), 96 Warren St., New York, N. Y.
Walsh Packing Co. (Packing and gaskets), 304 New St., Philadelphia, Pa.
Walsh Press & Die Co. (Power presses), 4709 W. Kinzie St., Chicago, Ill.
Walsh & Weidner Boiler Co., The (Boilers, tanks, etc.), Main and Sycamore Sts., Chattanooga, Tenn.; 11 Broadway, New York; 143 2nd St., San Francisco; P. O. Box 16, Kansas City, Mo.; 908 Canal Com'l Bldg., New Orleans; 456 Randolph Bldg., Memphis; 411 Duval Bldg., Jacksonville, Fla.
Walters Mfg. Co. (Oilers and torches), 1305 Farmers Bank Bldg., Pittsburgh, Pa. (See index to advertisement, pages 7, 8 and 9.)
Waltham Grinding Wheel Co. (Grinding wheels), Waltham, Mass.
Walton Co., The (Broken tap extractors), 308 Pearl St., Hartford, Conn.
Walton, Chas. S., & Co., Inc. (Leather), 306 No. 3rd St., Philadelphia, Pa.
Walton, C. J., & Son (Power boilers), 1221 W. Main St., Louisville, Ky.
Walton, F. S., Co., The (Belt dressing), Orthodox and Delaware River, Philadelphia, Pa.
Walworth Company, General Sales Offices: 51 East 42nd St., New York, N. Y. General Offices: 88 Pearl St., Boston, Mass. Plants at Boston, Mass.; Kewanee, Ill.; Greensburg, Pa.; Attalla, Ala.; Montreal, P. Q., Can. (See index to advertisement, pages 7, 8 and 9.)
Walworth Alabama Company (Soil pipe and fittings), Attalla, Ala.
Wapakoneta Machine Co. (Machine knives), Wapakoneta, O.
Wappat Gear Wks. (Electric hand saws), Meade St., Pittsburgh, Pa.
Ward, Chas. H., Engineering Works, The (Power boilers), Charleston, W. Va.
Ward-Love Pump Corp. (Pumps), 716 Race St., Rockford, Ill.
Ward Manufacturing Co., Inc. (Soldering irons), 937 Wellington Ave., Chicago, Ill.
Ware Coupling & Nipple Co. (Couplings and nipples), Ware, Mass.
Wardwell Mfg. Co., The (Saw sharpening machinery and tools), 110-112 Hamilton Ave., Cleveland, O.
Warley, Thos. C., & Co. (Boiler compound, etc.), 211-217 Bainbridge St., Philadelphia, Pa.; 617 W. Fulton St., Chicago.
Warner Implement Co., Inc. (Steel tool chests), Hammond, Ind.
Warner, W. E., & Co. (Brushes and brooms), 136 Centre St., New York, N. Y.
Warner & Swasey Co., The (Metal working mach'y), 5809 Carnegie Ave., S.E., Cleveland, O.; 149 Broadway, New York; 5928 2nd Blvd., Detroit; 618-22 Washington Blvd., Chicago.
Warnock Mfg. Co. (Pipe wrenches and vises), Worcester, Mass. (See index to advertisement, pages 7, 8 and 9)
Warren Axe & Tool Co. (Axes, etc.), Warren, Pa.
Warren Belting Co. (Leather belting), 22 Arctic St., Worcester, Mass.
Warren City Tank & Boiler Co. (Boilers and tanks), Warren, O.
Warren Co., The (Pulley covering), 401 No. 5th St., Niles, Mich
Warren Foundry & Pipe Co. (Pipe and fittings), 11 Broadway, New York, N. Y.; Sitgraves St., Phillipsburg, N. J.; 201 Devonshire St., Boston.
Warren-Knight Co. (Levels), 136 N. 12th St., Philadelphia, Pa.
Warren Lubricant Co. (Oils and greases), 22 Maurice St., Buffalo, N. Y.; 27 Coenties Slip, New York; 608 S. Dearborn St., Chicago.
Warren Steam Pump Co. (Steam pumps, etc), Warren, Mass.
Warren Steel Car Co. (Car movers), Warren, Pa.
Warren Tool & Forge Co., The (Forged tools), 258 Griswold St. Warren, O.
Warsaw Elevator Co. (Hand and sidewalk elevators), Warsaw, N. Y.
Warwood Tool Co. (Coal miners' tools), foot of 19th St., Wheeling, W. Va.
Washburn Co., The (Small screws, hooks, etc.), 28 Union St., Worcester, Mass.
Washburn Shops (Lathes, grinders, presses), Boynton St., Worcester, Mass.
Washburn & Granger (Boiler grates), 50 Church St., New York, N. Y.
Washington Iron Works (Porcelain enameled plumbing goods), 2251 E. 8th St., Los Angeles, Cal.
Washington Machinery & Supply Co. (Log loaders), 9 E. Cataldo St., Spokane, Wash.
Washington Metal Products Co., The (Drainage fittings), Washington C. H., Ohio.
Water Works Equipment Co. (Tapping machines), 50 Church St., New York, N. Y.
Waterbury Brass Goods Corp. (Hose couplings, solder, etc.), 26 Crane St., Waterbury, Conn.; Chicago; New York; Philadelphia.
Waterbury Clock Co. (Engine room clocks), 31 Cherry Ave., Waterbury, Conn.; 137 Centre St., New York; 215 W. Randolph St., Chicago; 150 Post St., San Francisco, Cal.
Waterbury Co. (Wire rope), 63 Park Row, New York, N. Y.; Chicago; New Orleans; San Francisco.
Waterbury Mfg. Co. (Brass fittings), 236 Grand St., Waterbury, Conn.
Waterbury Rolling Mills, Inc. (Sheet metals), Watertown Ave., Waterbury, Conn.
Waterbury Wire Die Co. (Wire drawing dies), 444 Meadow St., Waterbury, Conn.
Waterhouse Welding Co. (Welding apparatus), 15 Pelham St., Boston, Mass.
Waterous Fire Engine Works (Fire engines and hydrants), 80 Fillmore Ave., E., St. Paul, Minn.
Waterproof Felt Products Co., Inc. (Waterproofed felt products), 2105 Warner Ave., Chicago, Ill.
Waters Arc Welding Corp. (Welding equipment), 619 10th Ave., New York, N. Y.
Waters Governor Co. (Valves and governors), 141 Milk St., Boston, Mass.
Waterston, J. M. (Tap and drill stands), 427 Woodward Ave., Detroit, Mich.
Watertite Drain & Scupper Co., Inc. (Floor drains), 137 East 46th St., New York, N. Y.
Watervliet Tool Co., Inc. (Expansion reamers), 1035 Broadway, Albany, N. Y.
Watson, H. F., Co. (Asbestos goods), 16th and Holland Sts., Erie, Pa.; 5331-59 So. Western Ave., Chicago; 79 Milk St., Boston.
Watson & McDaniel Co. (Steam specialties), 146 N. 7th St., Philadelphia, Pa. (See index to advertisement, pages 7, 8 and 9).
Watson-Penfield Corp. (Pipe joint cement, etc.), 29 So. 2nd St., New Bedford, Mass.
Watson-Stillman Co., The (Hydraulic mach'y), 75 West St., New York N. Y.; 332 S. Michigan Ave., Chicago; Widener Bldg., Philadelphia.
Watt Mining Car Wheel Co. (Mine cars), Barnesville, Ohio.
Watts Bros. Tool Works (Drills, wrenches, etc.), 760-770 Airedale Ave., Wilmerding, Pa.
Watts, Campbell Co., The (Steam engines), 298 Ogden St., Newark, N. J.
Watts Regulator Co. (Pressure regulators and steam traps), 250 Lowell St., Lawrence, Mass.; 19 W. Jackson Blvd., Chicago.
Wausau Abrasives Co. (Abrasive paper and cloth), Wausau, Wis.; Detroit, Mich.
Wave Cut File & Tool Corp. (Files and Tools), 33 So. Desplaines St., Chicago, Ill.
Waverly Oil Works Co. (Lubricating oils), 54th St. and A. V. Ry., Pittsburgh, Pa.
Way, A. F., & Co., Inc. (Machinery and tools), 470 Tolland St., Hartford, Conn.
Waymoth, A. D., & Co. (Wood turning lathes), 177 Broad St., Fitchburg, Mass.
Wayne Heater Corp. (Heating boilers), 217 Main St., Richmond, Ind.
Wayne Tank & Pump Co., The (Oil tanks), Fort Wayne, Ind. Branches in principal cities.
Waynesboro Nipple Works (Steel pipe nipples), Waynesboro, Pa.
Waynesboro Nut Lock Co. (Nut locks), Waynesboro, Pa.
Wear Proof Mat Co. (Mats and matting), 2156 Fulton St., Chicago, Ill.
Wearwell Gasket & Packing Co. (Gaskets and packings), Camden, N. J.
Weaver Mfg. Co. (Garage equipment), Springfield, Ill.
Webb Belting Co. (Leather belting), 1507 W. 12th St., Kansas City, Mo.
Webb City & Carterville Fdy. & Mach. Wks. (Rock crushers), Webb City, Mo.
Webb, Chas. J., Sons Co., Inc. (Wool and cotton waste), 116 Chestnut St., Philadelphia, Pa.
Webb Elisha, & Son Co. (Boiler flue plugs), 136 S. Front St., Philadelphia, Pa.
Webb, F. W., Mfg. Co. (Pipe unions, etc.), 50-60 Elm St., Boston, Mass.
Webb Manufacturing Co. (Flexible shafting), 245-47 N. J. R. R. Ave., Newark, N. J.
Weber Bros. Metal Works (Metal floats), 112 No. Jefferson St., Chicago, Ill.
(See index to advertisement, pages 7, 8 and 9.)
Weber-Erickson-Bunting Co. (Steel products), 633 Liberty Ave., Pittsburgh, Pa.
Weber Manufacturing Co. (Plumbing supplies), 9030 South Chicago Ave., Chicago, Ill.
Weber & Pitcher (Factory trucks, etc.), Fullerton and P. R. R., Detroit, Mich.

Webster Mfg. Co. (Elevating, conveying and power transmission machinery), 4560 Cortland St., Chicago; 90 West St., New York; 902 Oliver Bldg., Boston, Mass.; 1914 Union Central Life Ins. Bldg., Cincinnati, O.; 509 Sweetland Bldg., Cleveland, O.; 572 Ellicott Sq. Bldg., Buffalo; 719 Commercial Trust Bldg., Philadelphia.
Webster, Warren, & Co. (Steam heating specialties), 17th and Federal Sts., Camden, N. J. Branches in principal cities.
Wedell & Boers (Tool cases), 28 W. Jefferson Ave., Detroit, Mich.
Weed Engineering Works (Milling machines), 738 Union Ave., Bridgeport, Conn.
Weil-McLain Co. (Boilers and heaters), Michigan City, Ind.
Well Pump Company (Pumps), 215-17 W. Superior St., Chicago, Ill.
Weimer Chain & Iron Co. (Chains), Lebanon, Pa.
Weimer Machine Works Co. (Wheelbarrows), Lebanon, Pa.
Weinman Pump Mfg. Co., The (Steam pumps), 284 Spruce St., Columbus, O.; 4085 Jenkins Arcade Bldg., Pittsburgh, Pa.
Weintz Bros. (Saw mill machinery), Park St. and Belt R. R., Evansville, Ind.
Weisbecker, Francis A., & Sons (Polishing machines), 22-24 Frost St., Brooklyn, N. Y.
Weiskittel, A., & Son Co. (Enameled plumbing ware, etc.), 12th & E. Lombard St., Baltimore, Md.
Weiss, A. A., & Co. (Thermometers), 263 Vanderbilt Ave., Brooklyn, N. Y.
Weldcraft Equipment Co. (Welding wire), 2623 Liberty Ave., Pittsburgh, Pa.
Welded Steel Barrel Corp., The (Steel barrels), 211 Leib St., Detroit, Mich.; New York.
Weldit Acetylene Co. (Welding and cutting apparatus), 638 Bagley Ave., Detroit, Mich.
Weller Mfg. Co. (Conveying mach'y), 1856 N. Kostner Ave., Chicago, Ill.; 50 Church St., New York; Garrett Bldg., Baltimore; 920 Kearns Bldg., Salt Lake City, Utah; 112 Water St., Boston, Mass.; 613 Lincoln Bldg., Philadelphia; Jenkin Arcade Bldg., Pittsburgh. (See index to advertisement, pages 7, 8 and 9).
Wellman-Seaver-Morgan Co., The (Water power equipment), 7000 Central Ave., S.E., Cleveland, O.; 522 Fifth Ave., New York.
Wells, A. H., & Co. (Copper tubing), 563 Watertown Ave., Waterbury, Conn.; 302 Lincoln Bldg., Detroit; First Nat'l Bank Bldg., Chicago.
Wells Chemical Bronze Works (Babbitt metals), 65 Temple St., Worcester, Mass.
Wells Tap & Die Co. (Screw plates), 106 Hope St., Greenfield, Mass.
Wellston Mfg. Co. (Bolt display cabinets), Wellston, O.
Welsbach Co. (Bath traps), Gloucester, N. J.
Welsh, William ("Star" water filters and filtering stones), 2723 Arbor Ave., Cincinnati, O.
Wensley Metal Products Co. (Fire extinguishers, metals, etc.), 2232 Blake St., Denver, Colo.
Wenzelmann, G. (Paper balers), Galesburg, Ill.
Wesco Products Co., Inc., The (Industrial paints), 4545 Fifth Ave., Chicago, Ill.
Wesely, Chas. Co. (Laundry tubs), 3126 So. Canal St., Chicago, Ill. (See index to advertisement, pages 7, 8 and 9.)
Wessels, D. D., & Sons Co. (Laundry trays and frames), 1635 E. Euclid Ave., Detroit, Mich.
West Bend Equipment Co. (Factory trucks), West Bend, Wis.
West Coast Porcelain Mfrs. (Vitreous china plumbing fixtures, Millbrae, Cal.
West Haven Mfg. Co., The (Saws), 198 Brown St., West Haven, Conn.
West Leather Belting Co. (Leather belting), 950 Clinton St., Chicago, Ill.
West Steel Casting Co., The (Lathe dogs), 805 E. 70th St., Cleveland, O.
West Tire Setter Co., The (Hammers, presses, etc.), 255 Mill St., Rochester, N. Y.
West Virginia Pulp & Paper Co. (Friction boards), 200 Fifth Ave., New York, N. Y.; Printers Bldg., Chicago, Ill.
West & Dodge Co. (Thread gages), 37 Parkman St., Brighton, Boston, Mass.
Westco-Chippewa Pump Co. (Pumps), Davenport, Iowa.
Westcott Chuck Co. (Drill and lathe chucks), Oneida, N. Y.
Western Asbestos & Mfg. Co. (Pipe covering), 1219 Stout St., Denver, Colo.
Western Automatic Machine Screw Co., The (Screw machine products), 901 Foster Ave., Elyria, O.
Western Belting & Packing Co. (Leather belting), 1724 Wazee St., Denver, Colo.
Western Block Co. (Tackle blocks), Lockport, N. Y.; 74-76 Murray St., New York; 34 N. Clinton St., Chicago.
Western Boiler Compound & Chemical Co. (Boiler compound), 713-15 Washington St., Kansas City, Mo.
Western Brass Mfg. Co., 217 Tehama St., San Francisco, Cal.
Western Electric Co., Inc. (Motors and generators), 500 S. Clinton St., Chicago, Ill.
Western Engineering Co. (Condensation pumps), Davenport, Iowa.
Western Engineering & Mfg. Co. (Friction clutches), 2600 Irving Park Blvd., Chicago, Ill.
Western Felt Works (Mechanical felt goods), 4031 to 4115 Ogden Ave., Chicago, Ill. Branches in principal cities.
Western Hardware Mfg. Co. (Tool grinders), 118 Reservoir Ave., Milwaukee, Wis.
Western Machine Tool Works (Radial drills), Holland, Mich.
Western Machinery Co. (Gas engines), 1000 No. Alhambra, Los Angeles, Cal.
Western Mfg. Co. (Hydrants), Oskaloosa, Ia.
Western Nipple Manufacturing Co. (Pipe nipples), 304 United Bank & Trust Bldg., San Francisco, Cal.
Western Oil Pump & Tank Co. (Gasoline storage equipment), 2437 Kosciusko St., St. Louis, Mo.
Western Packing & Supply Co. (Packing and Gaskets), 231 N. Wells St., Chicago, Ill.; 228 Third St., Milwaukee, Wis.
Western Pipe & Steel Co. (Steel pipe), 444 Market St., San Francisco, Cal. Branches in principal cities.
Western Pulley Stone Co. (Pulley covering), 319 W. Chicago Ave., Chicago, Ill.
Western Pump Co. (Water supply outfits), Davenport, Ia.
Western Robe Mills, The (Automobile washers), 162 No. Desplaines St., Chicago, Ill.
Western Rubber Co., The (Mechanical rubber goods), 9th and Douglas, Goshen, Ind.
Western Screw Products Co. (Screw machine products), 19 St. George St., St. Louis, Mo.
Western Slate Co. (Plumbing slate), 325 Aberdeen St., Chicago, Ill.
Western Specialty Co. (Warehouse trucks), Iowa Bldg., Sioux City, Iowa.
Western Tool & Mfg. Co., The (Saws, tools, etc.), 1620 E. Pleasant St., Springfield, O.
Western Wheelbarrow Mfg. Co. (Wheelbarrows, factory trucks, etc.), South Fort Smith, Ark.
Western Wire Products Co. (Cotter pins), 3rd and Spruce Sts., St. Louis, Mo.
Westinghouse Electric & Mfg. Co. (Motors, pumps, switches, etc.), 30th and Walnut Sts., Philadelphia; East Pittsburgh, Pa.; branches in principal cities.
Westinghouse Traction Brake Co., The (Air brake equipment), Pittsburgh, Pa.; Railway Exchange, Chicago; 165 Broadway, New York; Munsey Bldg., Washington; Southern Pacific Bldg., San Francisco; Broadway & Tyler Sts., St. Louis, Mo.
Westland Engineering Supply Co. (Valve stem lubricators), 53 W. Jackson Blvd., Chicago, Ill.
Weston Electrical Instrument Co. (Meters), 4 Weston Ave., Newark, N. J.
Wetmore Reamer Co. (Reamers, etc.), 60-64 27th St., Milwaukee, Wis.
Wetter, H., Mfg. Co. (Soil pipe and fittings), 107 Court Ave., Memphis, Tenn.
Wetzel Mechanical Stoker Co., The (Stokers), 1106 Broad St., Bank Bldg., Trenton, N. J.
Wheaton, A. W., Brass Works (Brass fittings), 110 Walnut St., Newark, N. J.
Wheeler Condenser & Engineering Co., The (Condensers, heaters, pumps), Carteret, N. J.; branches in principal cities.
Wheeler, C. H., Mfg. Co. (Steam condensers), Lehigh Ave. and 18th St., Philadelphia, Pa.; 26 Cortlandt St., New York; 825 Marquette Bldg., Chicago.
Wheeler, F. H., Mfg. Co. (Foundrymen's gloves, leggings, etc.), 215 West Huron St., Chicago, Ill.
Wheeling Corrugating Co. (Sheet metal goods), Wheeling Steel Corp. Bldg., Wheeling, W. Va.; New York; Philadelphia; Chicago; St. Louis; Chattanooga; Kansas City.
Wheeling Machine Products Co. (Pipe couplings), 1920 Main St., Wheeling, W. Va.
Wheeling Mold & Foundry Co. (Metal cutting shears), (Peninsula), Wheeling, W. Va.
Wheeling Sanitary Mfg. Co. (Porcelain and vitreous plumbing fixtures), Foot of 4th St., Wheeling, W. Va.
Wheeling Steel Corporation (Iron and steel pipe), Wheeling, W. Va.; 120 Broadway, New York, N. Y.; Oliver Bldg., Pittsburgh, Pa.; 1222 McCormick Bldg., Chicago, Ill.
Wheeling Steel Products Co. (Steel and iron sheets, pipe, etc.), Wheeling, W. Va.; branches in principal cities.
Wheelock Mfg. Co. (Metallic hose), Wheelock, Vt.
Wheelwright, Louis (Water filters), 45 E. 17th St., New York, N. Y.

Wheland Co., The (Sawmill mach'y), Whiteside and 27th St., Chattanooga, Tenn.
Whipp Machine Tool Co. (Shapers), Sidney, O.
Whisler, John (Nut splitters), Gibson, Iowa.
Whitacre Boiler Co. (Heating boilers, etc.), Wellsville, O.
Whitaker Mfg. Co., The (Wrenches, chisels, etc.), 409-413 S. Green St., Chicago, Ill.
White, A. E., Machine Works (Saw swages), Eau Claire, Wis.
White, David, Co., Inc. (Levels), 901-7 Chestnut St., Milwaukee, Wis.
White Flushing Valve Mfg. Co. (Flush valves, etc.), 4023 Walnut St., Denver, Colo.
White Heat Products Co. (Grinding wheels), Frazer, Pa.
White, L. & I. J., Co., Inc. (Edge tools), Perry and Columbian Sts., Buffalo, N. Y.; Atlanta; New York; St. Louis; Philadelphia.
White Mfg. Co. (Water heaters, circle saws), 93 Lafayette St., Newark, N. J.
White, O. C., Co. (Adjustable electric light fixtures), 15-21 Hermon St., Worcester, Mass.
White, S. S., Dental Mfg. Co., The (Flexible Shaft Dept.) (Flexible shafting), 84 Market St., New York, N. Y.
White Showers, Inc. (Lawn sprinklers), 6451 Dubois St., Detroit, Mich.
White Star Co. (Elevator buckets), 209-13 N. St. Francis St., Wichita, Kans.
White Star Refining Co. (Lubricating greases), 5950 Avery, Detroit, Mich.
White Steel Sanitary Furniture Co. (Medicine cabinets), Grand Rapids, Mich.
White Water Heater Co. (Water heaters), 812 Mateo St., Los Angeles, Cal.
White & Bagley Co., The (Lubricants), 100 Foster St., Worcester, Mass.
Whitehead Bros. Rubber Co., The (Mechanical rubber goods), Trenton, N. J.
Whites Metal Co. (Solder), Lees Summit, Mo.
Whiting & Comstock (Dividing head), 32 Union Place, Hartford, Conn.
Whiting, Henry F. (Leather belting), 154 Market St., Lowell, Mass.
Whiting, John L.-J. J. Adams Co. (Brushes), 700 Harrison Ave., Boston, Mass.
Whiting Leather & Belting Co. (Leather belting), Jackson & 2d Aves., Long Island City, N. Y.
Whitlam, J. C., Mfg. Co. (Pipe joint cement), Wadsworth, O.
Whitlock Coil Pipe Co., The (Pipe coils), (Elmwood), Hartford, Conn. Branches in principal cities.
Whitlock Cordage Co. (Rope and cordage), 46 South St., New York, N. Y.; Manning and Communipaw Aves., Jersey City; 226 State St., Boston; 1303 Chamber of Commerce, Chicago; 512 Railway Exchange, Kansas City, Houston.
Whitlock, J. W. & Co. (Woodworking machinery), Rising Sun, Ind.
Whitman Barnes-Detroit Corp. (Drills, reamers, etc.), 2108 West Fort St., Detroit, Mich.
Whitmore Mfg. Co. (Lubricants), Iron Ct. and Erie Ry., Cleveland, O.
Whitney, Baxter D., & Son., Inc. (Woodworking mach'y), Winchendon, Mass.
Whitney Mfg. Co., The (Metalworking tools), Bartholomew Ave., Hartford, Conn.
Whitney Metal Tool Co. (Punches, shears), 110 Forbes St., Rockford, Ill.
Whitney, W. A., Mfg. Co. (Metal punches), 715 Park Ave., Rockford, Ill.
(See index to advertisement, pages 7, 8 and 9.)
Whiton, D. E., Machine Co., The (Drill chucks), New London, Conn.
Wholey Boiler Works (Tubular boilers), 95 Whipple St., Providence, R. I.
Wickes Boiler Co. (Boilers), 512 No. Water St., Saginaw, Mich.; 76 W. Monroe St., Chicago; 1216 Empire Bldg., Pittsburgh; 1116 Penobscot Bldg., Detroit; Seattle; Houston, Tex.
Wickwire Bros. (Wire cloth), Cortland, N. Y.
Wickwire Spencer Steel Co., Inc. (Wire and wire cloth), 41 E. 42nd St., New York; Worcester, Mass.; Buffalo, N. Y.; Boston, Philadelphia, Detroit, Chicago, Los Angeles, San Francisco.
Wiebusch & Hilger, Ltd., Selling agents for Alston Saw & Steel Co., Inc. (Hack saw blades), 110 Lafayette St., New York, N. Y.
Wiedeke, Gustave, & Co. (Tube cutters and expanders), 1837 Richard St., Dayton, O.
Wilbraham-Green Blower Co. (Pressure blowers), Pottstown, Pa.; 269 Monadnock Bldg., San Francisco.
Wilby, Albert E. (Leather belting), 68 Washington St., Lowell, Mass.
Wilcox, Crittenden & Co., Inc. (Marine hardware), 3 So. Main St., Middletown, Conn. (See index to advertisement, pages 7, 8 and 9.)
Wild, Walter H. (Boiler compound), Land Title Bldg., Philadelphia, Pa.
Wilder Mfg. Co., Inc. (Bathroom cabinets), 207-215 Pacific St., Brooklyn, N. Y.
Wilder-Pike Thermometer Co., Inc., The (Thermometers), 552 Fulton St., Troy, N. Y.
Wile Electric Furnace Co. (Electric furnaces), Jenkins Arcade, Pittsburgh, Pa.
Wilfert, John, Co. (Gate valves), 258 Broadway, New York, N. Y.
Wifley, A. R., & Sons (Pumps), Denver, Colo.
Wilkie Machine Works (Grinding attachments), Winona, Minn.
Wilkins, Geo. H., Co. (Gage glass cutters), 180 N. Wacker Dr., Chicago, Ill.; F. Van Blarcom, 30 Warren St., New York.
Wilkinson, A. J., & Co. (Draw knives), 184 Washington St., Boston, Mass.
Wilks, S., Mfg. Co. (Tanks), 3517 Shields Ave., Chicago, Ill.
Will & Baumer Candle Co., Inc. (Candles, etc.), 811 No. Alvord St., Syracuse, N. Y.
Willcox Engineering Co. (Water weighers, etc.), 900 So. Warren St., Saginaw, Mich.
Williams Alloy Co. (Babbitt metal), Elyria, Ohio.
Willgood Mfg. Co. (Polishing Discs), 3251 Broadway, New York, N. Y.
Williams-Bowman Rubber Co., The (Gage glass washers), 1947 So. 54th Ave., Cicero, Ill.
Williams Oil-O-Matic Heating Corporation (Fuel oil burners), Bloomington, Ill.
Williams Company, The (Steel wool), London, O.
Williams, D. T., Valve Co., The (Valves, traps, separators, etc.), Spring Grove Ave. and Township St., Cincinnati, O.
Williams, E. A., & Son, Inc. (Babbitt metal), 105-111 Plymouth St., Jersey City, N. J.; 155 Livingston St., Elizabeth, N. J.
Williams, Franklin, Inc. (Valves, etc.), 263 Jefferson St., Newark, N. J.
Williams, George E. (Plumbers' wipers), 3 E. 26th St., Minneapolis, Minn.
Williams, The G. H., Co. (Hoisting buckets), Erie, Pa. 30 Church St., New York.
Williams Gauge Co., The (Gauges, traps, etc.), 1620 Pennsylvania Ave., N. S., Pittsburgh, Pa.; 280 Madison Ave., New York; representatives in principal cities.
Williams, I. B., & Sons (Leather belting), Dover, N. H.; 1215 Washington Blvd., Chicago; 71-73 Murray St., New York; 111 Summer St., Boston.
Williams, J. H., & Co. (Wrenches, vises, etc.), 400 Vulcan St., Buffalo, N. Y.; 75-77 Spring St., New York; 117 No. Jefferson St., Chicago, Ill.; 95 Thorold Road, St. Catharines, Ont., Can.
Williams Radiator Co. (Radiators, etc.), 1118 So. Grand Ave., Saint Louis, Mo.
Williams Tool Corp. (Pipe threading machines), 12th and Liberty Sts., Erie, Pa.
Williams, White & Co. (Power hammers), 3rd Ave., 6th to 9th St., Moline, Ill.
Williams, William E., Valve Corporation, (Valves), 62 Front St., New York.
Williams & Co. (Monel pipe fittings), 901 Pennsylvania Ave., Pittsburgh, Pa.
Williams & Wells Co. (Pipe joint cement), 250 Fulton St., New York, N. Y.
Williamsburg Flint Glass Co. (Gage glasses), 290 Broadway, New York, N. Y.
Williamson, D. D., & Co. (Scale remover), 86 Fulton St., New York, N. Y.
Williamsport Wire Rope Co. (Wire rope), Williamsport, Pa.; New York; Boston; Chicago; New Orleans; Muskogee, Okla.; Houston; Cleveland; Tulsa, Okla.; Portland, Ore.; Seattle; Pittsburgh; Cincinnati; Detroit; Duluth.
Williamsville Buff Mfg. Co. (Polishing wheels), Danielson, Conn.
Willis, K. I., Corp. (Elevator buckets), Moline, Ill.
Willson Goggles, Inc. (Eye protectors), 2nd and Washington Sts., Reading, Pa.
Wilmarth & Morman Co. (Loose pulleys, etc.), Grand Rapids, Mich.
Wilmington Fibre Specialty Co., New Castle, Del. Branches in principal cities.
Wilson-Daum Co. (Gas appliances), 213 Market St., Pittsburgh, Pa.
Wilson-Maeulen Co. (Pyrometers), 369 Concord Ave., New York, N. Y.
Wilson-Snyder Mfg. Co. (Steam pumps), 100 Talbot Ave., Pittsburgh, Pa.; New York; Cleveland; Philadelphia.
Wilson, W. S., Corp. (Welding rods), 157 Chambers St., New York.
Wilson Welder & Metals Co., Inc. (Electric welders), Wilson Bldg., Hoboken, N. J. Branches in principal cities. (See index to advertisement, pages 7, 8 and 9.)
Wilson & Bennett Mfg. Co. (Oil pumps, steel barrels, etc.), 65th St. and S. Menard Ave., Chicago, Ill.
Wilson & Willard Mfg. Co. (Oil well tools), 2301 E. Vernon St., Los Angeles, Cal.
Wilton Mfg. Co. (Brass cocks), Wrightsville, Pa.
Windau Steel Co. (Milling cutters), 1565 East 17th St., Cleveland, O.

Windsor Mfg. Co. (Glaziers' lead, etc.), 566-74 Clinton, Milwaukee, Wis.
Winfield Electric Welding Machine Co., The (Electric welders and riveters), Warren, O. Branches in principal cities.
Wing, L. J., Mfg. Co. (Fans and engines), 352 W. 13th St., New York; branches in principal cities.
Winkler, Chas., Inc. (Bench stops, etc.), 178-182 Emmett St., Newark, N. J.
Winne, Frank W., & Son, Inc. (Oakum packing), 42-44 N. Front St., Philadelphia Pa.; Pittsburgh, Cleveland, Baltimore.
Winner Company, The (Steam traps, etc.), 30 Church St., New York, N. Y.
Winslow Boiler & Engineering Co. (Fuel oil burners), 208 So. La Salle St., Chicago.
Winsted Hardware Mfg. Co. (Closet screws), Winsted, Conn.
Winter Bros. Co. (Dies, stocks, taps), Wrentham, Mass.; 546 W. Washington Blvd., Chicago; General Motors Bldg., Detroit, Mich.
Winter, F. W., & Co. (Sanding machines), Faribault, Minn.
Winterhoff Tool & Machine Co. (Bench drills), Elkhart, Ind.
Wire Rope Lubricating Co. (Rope dressing), Prospect St., Trenton, N. J.
Wirt & Knox Mfg. Co. (Hose racks), 23d and York Sts., Philadelphia, Pa.
Wisconsin Electric Co. (Electric grinders), Dumore Bldg., Racine, Wis.
Wisconsin Foundry & Machine Co. (Electric pumping systems), 613-23 E. Main St., Madison, Wis.
Wisconsin Machinery & Mfg. Co. (Gas engines), Milwaukee, Wis.
Wisconsin Waste & Wiper Co. (Wiping materials and waste), 709 Windlake Ave., Milwaukee, Wis.
Wise Furnace Co., The (Heating boilers), Akron, O.
Wise, J. B., Inc. (Plumbing brass goods), Watertown, N. Y.
Wiss, J., & Sons Co. (Scissors and shears), 33 Littleton Ave., Newark, N. J.
Wistrand Mfg. Co. (Hand pumps), Galva, Ill.
Witherup Cork Packing Co. (Packing), Beaumont, Tex.
Witt Cornice Co., The (Oily waste cans, etc.), 2118 Winchell St., Cincinnati, O.
Witt, G. E., Co., Inc. (Thermostats), 862-64 Howard St., San Francisco, Cal.
Witte Engine Works (Gas engines), 16th and Oakland, Kansas City, Mo.; Empire Bldg., Pittsburgh, Pa.
Wittemann Co., The (Carbonators), 842-852 Elk St., Buffalo, N. Y.
Wizard Mfg. Co. (Back water floor traps), 1608 Fulton St., Chicago, Ill.
Woburn Iron Foundry, Inc. (Grates), Woburn, Mass.
Wodack Electric Tool Corp. (Drills and hammers, electric), 23-27 S. Jefferson St., Chicago.
Wolf Co., The (Pulleys, shaft hangers, etc.), Chambersburg, Pa.
Wolf New Proces. Abrasive Wheel Co., Inc. (Grinding wheels), 7.' Hanover St., Meriden, Conn.
Wolf Safety Lamp Co. of America, Inc., 220-224 Taaffe Place, Brooklyn, N. Y.
Wolff, A. H., Gas Radiator Co. (Industrial gas burners), 376 Lafayette St., New York.
Wolff Coal Saver Co. (Fuel economizers), 1330 W. Congress, Chicago, Ill.
Wolff Mfg. Corp. (Plumbing fixtures and fittings), 2057 Fulton St., Chicago; Dallas; Omaha; St. Louis; Denver, Hammond, Ind.; Cincinnati.
Wolff, L. A., Metal Works (Babbitt metal), 528 Orient Ave., Cincinnati, O.
Wolff Range Boiler Mfg. Co. (Range boilers), N. E. corner Western Blvd. and 45th St., Chicago, Ill.
Wolverine Caster Co. (Factory trucks, milling machines), Traverse City, Mich.
Wolverine Foundry Co. (Plumbers' specialties), 1161 Bellevue Ave., Detroit, Mich.
Wolverine Tube Co. (Brass and copper tubing), 1411-51 Central Ave., Detroit, Mich.
Wood, Alan, Iron & Steel Co. (Steel plates and sheets), Widener Bldg., Philadelphia, Pa.; Boston; New York; San Francisco; Fort Worth, Tex.
Wood, John, Mfg. Co. (Tanks), Conshohocken, Pa.; Boston, San Francisco, Cleveland, Philadelphia, New York, Chicago, Los Angeles, Toronto, Ont.
Wood, J. R., Supply Co., The (Wire rope fittings), 917-19-21 Broadway, Cincinnati, O.
Wood, Morris & Sons (Rock drills), 5108 W. Lake St., Chicago.
Wood, R. D., & Co. (Gas and waterworks equipment), 400 Chestnut St., Philadelphia, Pa.
Wood Shovel & Tool Co. (Shovels, scoops, spades), Piqua, O.
Wood, S. W., Engine Co., Inc. (Steam engines and boilers), Clyde, N. Y.
Wood, T. B., Sons Company (Power transmission mach'y), Chambersburg, Pa.
Wood Turret Machine Co. (Turret lathes), Brazil, Ind.
Wood, William H. (Valves, pumps), Media, Pa.
Woodbridge Ceramic Corporation (Sanitary plumbing ware), Woodbridge, N. J.
Woodhouse Chain Works (Chains), Third & Schenck Sts., Trenton, N. J.
Woodhouse Mfg. Co., The (Hose fittings), 35 Warren St., New York, N. Y.
Woodley Slate Co. (Plumbing slate), Bangor, Pa.
Woodmanse Mfg. Co. (Chains), Freeport, Ill.; Council Bluffs, Ia.; Kansas City, Mo.; Sioux Falls, S. D.; Minneapolis, Minn.; Fort Worth, Tex.; Enid, Okla.
Woodrow Nipple Mfg. Co. (Pipe nipples), 816 N. Spaulding Ave., Chicago.
Woods, S. A., Machine Co. (Woodworking mach'y), 27 Damrell St., Boston.
Woodward Governor Co. (Water wheel governors), 202 Mill St., Rockford, Ill.
Woodward-Wanger Co. (Plumbers' tools), 1106 Spring Garden St., Philadelphia, Pa.
Woodwell, Joseph, Co. (Road builders' levels), 201 Wood St., Pittsburgh, Pa.
Woodworkers Tool Works (Knives), 222 S. Jefferson St., Chicago, Ill.
Woolford, N. B., Oakum Co. (Oakum), 601 S. Luzerne Ave., Baltimore, Md.
Woonsocket Supply Co. (Leather belting), Woonsocket, R. I.
Worcester Brush & Scraper Co. (Flue cleaners and brushes), 456 Park Ave., Worcester, Mass.
Worcester Lathe Co. (Lathes), 100 Beacon St., Worcester, Mass.
Worcester Pattern & Model Co. (Tool grinders), 93 Foster St., Worcester, Mass.
Worcester Pressed Steel Co. (Steel pulleys), 100 Barber Ave., Worcester, Mass. Branches in principal cities.
Wordell Plumbing Co., The (Plumbing specialties), Taunton, Mass.
World Beater Generator Co. (Acetylene generator), 2206 Forest Ave., Kansas City, Mo.
World Refining Co., The (Oil, grease, polish, etc.), 1031 Arlington Terrace, Easton, Pa.
Worns & Kemp (Traps and drains), 287 W. 127th St., New York, N. Y.
Worthington Oil Burner Co. (Oil burners), 1322 McGee St., Kansas City, Mo.
Worthington Pump & Machinery Corp., (Pumping machinery), 115 Broadway, New York, N. Y. Branches in principal cities.
Woven Steel Hose & Rubber Co. (Mechanical rubber goods), Trenton, N. J.
Wright-Austin Company (Steam saving equipment), 315 W. Woodbridge St., Detroit, Mich. (See index to advertisement, pages 7, 8 and 9.)
Wright, David A. (Metal working mach'y), 1150 S. Washtenaw Ave., Chicago, Ill.
Wright-Hibbard Industrial Electric Truck Co., Inc. (Factory trucks), Phelps, N. Y.
Wright Machine Co. (Engines), 321-405 E. 2nd St., Owensboro, Ky.
Wright Mfg. Co. (Chain hoists), Lisbon, O.; Conway Bldg., Chicago, Ill.; 126 Chambers St., New York.
Wright, Paul & Co. (Water tube boilers), B-M Bldg., Birmingham, Ala.
Wright, R. G., & Co. (Centrifugal pumps), 98 Eagle St., Buffalo, N. Y.
Wright & Alexander Co. (Concrete inserts), 285 State St., Rochester, N. Y.
Wrigley Thomas, Co., The (Toggle bolts and linemen's specialties), 504 Sherman St., Chicago.
Wrought Washer Mfg. Co. (Wrought iron washers), 46-54 So. Bay, Milwaukee, Wis.
Wuesthoff, M. W. (Spouts for lavatories, sinks, etc.), Monadnock Bldg., San Francisco, Cal.
Wyckoff, A., & Son Co. (Wooden steam pipe casing), 100 Home St., Elmira, N. Y.
Wyckoff Drawn Steel Co. (Steel mill products), Frick Bldg., Pittsburgh, Pa.
Wyckoff Pipe & Creosoting Co. (Underground conduits), 522 Fifth Ave., New York, N. Y.
Wyoming Shovel Works (Shovels and scoops), Wyoming, Pa.; Chicago, New York, Huntington, W. Va.; Philadelphia, Spokane.
Wysong & Miles Co. (Woodworking mach'y), Greensboro, N. C.

X

X Laboratories (Boiler leak compound and water filters), 25 W. 45th St., New York; Rialto Bldg., San Francisco, Cal.; 243 Columbus Ave., Boston, Mass.
X. L. Mfg. Co. (Lawn sprinklers), 3806 Montrose Ave., Chicago, Ill.

Y

Yale & Towne Mfg. Co., The (Hoists, trolleys, builders' hardware), Stamford, Conn.; New York, Chicago.
Yarnall-Waring Co. (Steam valves and specialties), 102 E. Mermaid Lane, Chestnut Hill, Philadelphia, Pa.

Yates-American Machine Co. (Sawmill and woodworking mach'y), 591 Lyell Ave., Rochester, N. Y.
Yeiser Faucets, Inc. (Plumbing brass goods), 1193 Holmden Ave., Cleveland, O.
Yeomans Bros. Co. (Pumping mach'y), 1433 Dayton St., Chicago, Ill.
Yesbera Mfg. Co. (Factory stools), Toledo, O.
Yerdon, William, (Est.) (Hose bands), Fort Plain, N. Y.
Yoder Co., The (Metal working mach'y), 5510 Walworth Ave., Cleveland, O.
Yohe, Wm. S., Supply Co. (Pipe storage racks), 503 Mahoning Rd., Canton, O.
Yonts, C. H., Co., The (Reamers and drills), Meadville, Pa.
York Heating & Ventilating Corp. (Heating and ventilating fans), 1502 Locust St., Philadelphia, Pa.
York Screw Works, Dept. H. (Machine screws and nuts), York, Pa.
York Wrench Mfg. Co. (Wrenches), 3140 Greenview Ave., Chicago, Ill.
Yost Mfg. Co. (Vises, anvils, etc.), Meadville, Pa. (See index to advertisement, pages 7, 8 and 9.)
Young's Boiler Compound Co. (Boiler compound), Catasauqua, Pa.
Young Bros. Company (Industrial ovens), 6500 Mack Ave., Detroit.
Young, Joseph H., Co. (Pipe vises), 286 Rutherford Ave., Boston, Mass.
Young Pump Co. (Steam and power pumps), Michigan City, Ind.
Young, R. W., Mfg. Co. (Cranes), 111 W. Monroe St., Chicago, Ill.
Youngstown Foundry & Machine Co. (Lathes, shears, etc.), Youngstown, O.; Singer Bldg., New York.
Youngstown Pressed Steel Co. (Building products), Warren, Ohio.
Youngstown Sheet & Tube Co., The (Pipe, sheet steel, etc.), Youngstown, O.; branches in all principal cities.
Yuba Manufacturing Co. (Centrifugal pumps), 433 California St., San Francisco, Cal.

Z

Z. T. Soot & Gas Consumer Co. (Fuel economizers), 346 Main St., Oshkosh, Wis.
Zaubitz, August (Gauges, pyrometers, thermometers), 95-97 Cliff St., New York, N. Y.
Zeh & Hahnemann Co., The (Power presses), Vanderpool St. and Ave. A, Newark, N. J.
Zeiller & Nagel (Saws and saw machinery), 232 Java St., Brooklyn, N. Y.
Zelnicker Crayon Works (Industrial crayons), 511 Locust St., St. Louis, Mo.
Zelnicker, Walter A., Supply Co. (Car movers, babbitts, etc.), 511 Locust St., St. Louis, Mo.
Zeolite Engineering Co. (Water softeners), 4642 Ravenswood Ave., Chicago, Ill.
Zernickow, O. (Precision instruments), 15 Park Row, New York, N. Y.
Zero Valve & Brass Corp. (Plumbing brass goods), 634 4th St., Buffalo, N. Y.
Zibell, J. A., Co. (Boiler compounds), 273 Water St., New York, N. Y.
Ziegler Mfg. Co. (Machine screws and nuts), Alexandria, Ind.
Zimmer, Conrad, Belting Co. (Leather belting), 37 Spruce St., New York.
Zimmerman Mfg. Co. (Wooden handles), 301 Cedar St., Owosso, Mich.
Ziv Steel & Wire Co (Tool steel), 2945 W. Harrison St., Chicago, Ill.
Zoerman-Clark Mfg. Co. (Screw plates), 701 Fulton St., Chicago, Ill.
Zurn, J. A., Mfg. Co. (Cast iron pipe fittings, etc.), Erie, Pa.

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Send Your News to your Business Paper

Since the first issue of MILL SUPPLIES in 1911 the policy of the paper has been to present forcefully to the mill supply manufacturers of the United States the value of working in closer harmony with mill supply distributors, and to furnish to both manufacturers and distributors a medium through which they may express their views on subjects of importance to the interests of both.

MILL SUPPLIES is the Forum of the Mill Supply Field. In its many years of service to the industry, the editorial staff has endeavored to keep its readers informed on all subjects of interest—views of leaders, merchandising methods, association activities, news of manufacturers and distributors, new products and improvements, and general information relating to the Mill Supply Field.

A Service to the Industry

It is of distinct value to manufacturers to keep distributors informed on the happenings of their individual organizations, and there is likewise a distinct value to distributors in keeping the activities of their individual organizations before the manufacturers whose lines they now stock or those whose lines they could profitably sell.

The following is an excerpt from a letter received from a supply house about which a short news article was published in MILL SUPPLIES:

"We assure you that this publicity is highly appreciated and will result profitably to some of your advertisers and later to ourselves through new connections effected with various manufacturers' sales managers who read the article and have been in correspondence with us with reference to their lines."

Hundreds of distributors have written similar letters, many of them old established houses which offhand would not seem to need any publicity.

It is the desire of MILL SUPPLIES to continue to be of service to the mill supply field. The assistance of distributors is particularly solicited to this end, and one effective means of giving this assistance is to send in all news about their organizations.

LET US HEAR FROM YOU WHENEVER YOU HAVE ANY NEWS

If
you are a firm and incorporate,
you elect any new officers,
you make any promotions,
you plan building alterations,
you plan a new building,
you add any new lines,
you expand your territory
you add any salesmen,
you add any novel methods,
you hold any employes' outings,
you have a salesmen's meeting,
anybody in your organization dies,
anything of interest happens,

That's News

MILL SUPPLIES

537 South Dearborn Street **Chicago, Illinois**